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Thirty-Sixth Annual Report
OF THE
State Board of Health
OF
South Carolina



FOR THE
FISCAL YEAR, 1915
TO THE
LEGISLATURE OF SOUTH CAROLINA

Press of
McCAW OF COLUMBIA
Columbia, S. C.

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STATE DOCUMENTS

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TABLE OF CONTENTS

	PAGE
Anterior Poliomyelitis (Infantile Paralysis)	49
Births and Deaths	95
Concise Report of Work of State Health Officer	77
Deaths According to Sex and Age	98
Diphtheria	22
Diphtheria Antitoxin Distributors	26
Diseases from which Deaths Occurred	97
Epidemic Cerebro-Spinal Meningitis	49
Epidemic Diseases	12
Executive Committee State Board of Health	6
Financial Statement	134
Food and Drugs	14
General Report	6
Letter of Transmittal	13
Malaria	31
Measles and Whooping Cough	46
Minutes of Executive Committee Meetings	56
Miscellaneous	8
Pasteur Department	66
Pellagra	50
Report of Anti-Tuberculosis Committee of Associated Charities of Columbia	112
Report of Bureau of Vital Statistics	93
Report of Chemist and Bacteriologist	114
Report of Committee on Epidemic and Contagious Diseases	16
Report of Committee on Sanitary Inspection of State Penal and Charitable Institutions	82
Report of South Carolina Sanatorium	101
Report of Committee on Sanitary Inspection of State Schools and Colleges	80
Report of Children's Clinic	111
Report of Director of Laboratory	85
Report of South Carolina Health Officer	104
Scarlet Fever	21
Semi-Annual Report of the Department of Vital Statistics	63
Smallpox	16
Specifications for Proposals on Diphtheria Antitoxin	74
Staff of South Carolina Department of Health	6
Summary of Laboratory Work	65
Supplies and Letters Sent Out	100
Tuberculosis	44
Typhoid Fever	40
Vaccine Virus Statement	19

LETTER OF TRANSMITTAL

*His Excellency, Richard I. Manning, Governor,
Columbia, S. C.*

Sir: I have the honor to submit for your consideration the thirty-sixth Annual Report of the State Board of Health.

It is most gratifying to note that the State Health Officer reports that "South Carolina has been remarkably free" during the past year, from infectious diseases. In my letter of transmittal last year, I expressed the expectation that the vigorous campaign for vaccination against smallpox which had been carried on throughout the state, would result in a "marked decrease in the number of cases during the following year." This expectation has been fully realized, the reports showing "a most marked decrease in this disease" during the present year. The campaign for vaccination must be prosecuted without remission, however, if smallpox is to be eradicated.

We are also able to report a "relatively smaller number of cases of diphtheria than last year." The small number of deaths from this disease is due directly to the free distribution of antitoxin, and we trust that the General Assembly will continue to support the Board of Health in this most beneficent activity.

It is a sad reflection upon the sanitary intelligence of our people that the death rate from typhoid fever continues very high. A disease whose death rate in some cities has been reduced to 20 per 100,000 of population, has in South Carolina, a death rate of 316 per 100,000, and this is a disease whose cause and modes of transmission are definitely known, and which may be prevented with comparatively little difficulty. At a conservative estimate, sanitary ignorance or sanitary carelessness with regard to typhoid fever is costing the people of the state between two and three hundred thousand

dollars per annum. Surely there is nothing which illustrates with more emphasis the need of liberally supporting the activities of the State Board of Health.

The problem of malaria is more difficult of solution, but the Board of Health is making great efforts to spread the saving knowledge of the means of preventing this disease, whose prevalence exercises such a vital influence upon the economic development of extensive portions of our state. A most important recommendation of the State Health Officer is that the General Assembly at the approaching session, pass a law forbidding the impounding of waters in South Carolina, unless a survey has been made by competent sanitary engineers, for the purpose of determining the probable effect of such impounding upon the health of the community, and a report submitted to the State Board of Health.

The reports of the current year show that the gravity of the pellagra situation is unaltered. In ten months, from January 1, to October 31, thirteen hundred deaths were recorded, making the mortality from this disease second only to that from tuberculosis. If the conclusions of Dr. Goldberger prove upon further investigation to be justified, there still remains an enormous amount of work to be done before we can feel that we have obtained a firmer grasp upon the vexing and mysterious problem. Would it not be a wise step for our state, whose interests are so vitally involved, to aid in the investigation, and make a special appropriation for this purpose?

The State Sanatorium for the treatment of tuberculosis, for whose construction provision was made at the last session of the General Assembly, is in successful operation under the direction of Dr. Ernest Cooper, and your attention is directed to his report. We earnestly trust that liberal support will be given this long-needed institution, in order that not only its continuance, but its growth with enlarging usefulness, may be assured to the people of the state.

It is especially gratifying to direct your attention to that portion of the State Health Officer's report that deals with the State Laboratory. The high position which this laboratory occupies should be a source of pride to all,

and the splendid work which it is doing for the people of the state merits the continued liberal support of the General Assembly. The report of the Director of the Laboratory should be carefully read. His statement that rabies "is practically endemic with us, and a dangerous epidemic outbreak of large proportions, which may result in many human deaths, may occur at any time," deserves your most serious consideration, and his suggestion that a state-wide registration law for dogs be passed, should be especially emphasized.

The State Health Officer should be congratulated for the establishment of the Bureau of Vital Statistics upon a secure and successful basis in the course of a year. The value of this bureau in the prosecution of all health work will be enormous, and the effective service of the Local Registrars deserves commendation.

Respectfully,

ROBT. WILSON, JR., M. D.

Chairman State Board of Health.

GENERAL REPORT

This is the 36th Annual Report of the Executive Committee of the State Board of Health, and is for the year ending December 31st, 1915.

This report is made in compliance with the following concurrent resolution, which directs that the "Reports of the Departments of the State Government, and every officer required by law to be made to the General Assembly or to any officer, the printing of which is to be charged to the State, shall contain only a concise statement of the transactions of the officer of department without repetition, and a concise statement of recommendations, and no proposed measure or copy of law, or copy of any other report or document, except such as the production of which shall be necessary, shall be printed at the expense of the State, etc."

EXECUTIVE COMMITTEE STATE BOARD OF HEALTH.

Robt. Wilson, Jr., M. D., Chm.....	Charleston
D. B. Frontis, M. D.....	Ridge Spring
C. C. Gambrell, M. D.....	Abbeville
E. A. Hines, M. D.....	Seneca
W. J. Burdell, M. D.....	Lugoff
Wm. Egleston, M. D.....	Hartsville
W. M. Lester, M. D.....	Columbia
W. W. Dodson, Ph. D.....	Greenville
Thos. H. Peeples, Atty. Gen.....	Columbia
C. W. Sawyer, Comp. Gen.....	Columbia
Jas. A. Hayne, M. D., Secretary and State Health Officer.....	Columbia

STAFF OF SOUTH CAROLINA DEPARTMENT OF HEALTH—EXECUTIVE DEPARTMENT.

Jas. A. Hayne, M. D., State Health Officer and Executive Officer of State Board of Health, Columbia	
J. LaBruce Ward, M. D., Director of Rural Com- munity Units	Columbia

J. T. Howell, M. D., Agent State Board of Health
for Community Work

F. M. Routh, M. D., Agent State Board of Health
for Community Work.

*F. D. Rodgers, M. D., Assistant in Rural Sanitation.

*L. A. Riser, M. D., Assistant in Rural Sanitation.

Clerk Columbia

Janitor Columbia

LABORATORY DEPARTMENT.

F. A. Coward, M. D., Director Columbia

Jas. R. Cain, Assistant Bacteriologist Columbia

F. L. Parker, M. D., Chemist and Bacteri-
ologist Charleston

Stenographer Columbia

BUREAU OF VITAL STATISTICS.

C. W. Miller, Chief Clerk Columbia

Filing Clerk Columbia

Stenographer Columbia

MEETINGS.

The Board in addition to its regular quarterly meetings held one special meeting. The Sub-Committee of the Executive Committee, which has charge of the affairs of the South Carolina Sanatorium at State Park, met twice. The personnel of this committee is as follows:

Robert Wilson, Jr., M. D., Chairman Charleston

Jas. A. Hayne, M. D., Secretary Columbia

C. C. Gambrell, M. D. Abbeville

W. J. Burdell, M. D. Lugoff

Wm. Egleston, M. D. Hartsville

THE BOARD'S QUARTERS.

The Board is now comfortably situated, the rooms furnished us by the University of South Carolina have been cemented, the doors and walls repaired, and building steam-heated, which is furnished by the central steam

*Work discontinued July 1st, 1915.

heating plant of the University. Here is located the Bureau of Vital Statistics and the Laboratory.

The State Health Officer has two rooms on the fifth floor of the Palmetto Bank Building, conveniently situated so that the public may have ready communication with this officer.

MISCELLANEOUS.

The State Health Officer is glad to report that the work of the State department of health has progressed smoothly and satisfactorily this year. The establishment of the Bureau of Vital Statistics was a task of formidable proportions, but it is now firmly established and working successfully. We believe that we are obtaining 90% of all deaths and 85% of all births.

We have commissioned 508 Local Registrars who represent every township of every county in South Carolina. They are faithful in the performance of their duty and do this work largely from a sense of patriotic duty to the commonwealth. Their remuneration is extremely small and the work that they do is arduous and in many communities thankless. They deserve from the Legislature and from the people grateful acknowledgment of their services. A detailed report is inserted in this volume.

The South Carolina Sanatorium was established and formerly opened in June of this year. It is beautifully situated and has every modern convenience for the maintenance of a successful sanatorium for the treatment of tuberculosis. It is the nucleus around which we believe that the Legislature will build a sanatorium that every South Carolinian will be proud of. It is the realization of the dream of the Board of Health ever since this Board was created in 1879. Its Superintendent, Dr. Ernest Cooper, is a graduate of Johns Hopkins University, (Medical Department) and a man of the highest scientific attainments and whose personal character is most excellent. He has devoted himself faithfully towards making his patients comfortable, and has done all he could towards bringing them back to health and strength. The staff at the Sanatorium consists of Dr. Ernest

Cooper, Superintendent, a trained nurse, matron, cook, orderly and a mechanic. The Sanatorium has its own cows, which furnish an abundance of milk; and has a sufficient amount of cleared land so that next year they can produce a large amount of the vegetables for the use of the patients. A detailed report of this Sanatorium is inserted in this volume.

The State Laboratory, which was established in 1908, continues to justify by its excellent work the wisdom of the Legislature in establishing such a Laboratory.

Public health campaigns did not commence with any degree of scientific knowledge until the discovery of the cause of most preventable diseases, and these causes could only be found by microscopic examination; hence the growth of public health laboratories. The first municipal public health laboratory was established in Providence, R. I., in 1888, by Dr. Gardner T. Swarts, who is still Health Officer of Rhode Island, and in 1892 a division of bacteriology and disinfection was established in the Department of Health in New York city. In 1894 examination of sputum for tuberculosis was commenced, and twenty years ago treatment with diphtheria antitoxin was first offered free to the citizens of New York. The work of State Laboratories of the United States, as compiled by Mr. C. E. A. Winslow, Professor of Public Health, Yale University, shows that all the States have public health laboratories except one, and that is New Mexico. The majority of them make examinations of specimens for the purpose of diagnosis of diphtheria, tuberculosis, malaria, typhoid fever, gonorrhea, syphilis, glanders, rabies and cancer. Eighteen manufacture anti-typhoid bacterin. Six manufacture anti-rabic vaccine; one of the six being South Carolina. The per capita appropriation for our laboratory for 1914 was four one-thousandth of one-cent. The State of Florida appropriates thirty-six one-thousandths of one cent; exactly nine times as much as South Carolina. The State Laboratory is an absolute necessity for proper carrying on of public health work, as Mr. Winslow says: "Its functions are growing and multiplying, the character of its work is growing more exact and rigorous, its problems of research more

taxing and more numerous; therefore it must insistently ask for needed funds for its fundamental work. It is true that public health laboratories, where work is done free, must of necessity compete with private laboratories, but this competition is more apparent than real, for by education of the physicians as to the need of such laboratory work, the physicians who have patients who can afford special examinations will have these examinations made by private laboratories, but for the great mass of those who are unable to pay, or able to pay very little, the physician will be able to obtain from public health laboratories data upon which proper diagnosis and treatment can be given. There are now twenty-seven States that do microscopic examination and Wasserman test for syphilis, and when we consider that it is estimated that the inclusion or the exclusion of the diagnosis of syphilis, whether acquired or hereditary, is necessary in 60% of all sick people, we begin to understand that it is the proper function of the State to provide such means of diagnosis for the people; and even though it should interfere with private laboratories, yet in a democratic form of government whose watchword is "the greatest good for the greatest number," the rights of the few must always be superseded when they interfere with the rights of the many. Our laboratory stands in the first rank in State Laboratories, and has been a pioneer in certain lines, and South Carolinians should be exceedingly proud of the rank taken by its laboratory. We call upon the Legislature to liberally support this great work of the State Board of Health, which has meant so much to the people of the State. A newspaper in New York stated that at the installation of Dr. Biggs, Commissioner of Health of New York State, 20,000 children who have been saved by diphtheria antitoxin, with their parents and friends, are represented as an army marching from New York City to Albany to assist in his installation. This antitoxin has been distributed free in New York City on account of the request of Dr. Biggs. We feel sure that if the people whose lives have been saved in South Carolina through the agency of our State Laboratory could be gotten together and could march to Colum-

bia, they would make such a multitude as would impress the General Assembly as to the value of the work done.

Our Director of Laboratory, Dr. F. A. Coward, is a South Carolinian, brought up in York County, educated at the Citadel, graduated at our South Carolina State Medical College, and stands well to the front among the bacteriologists of the United States, and is so recognized by them.

A detailed report of the laboratory will be inserted in this volume.

BULLETINS.

The following bulletins have been issued by this department and sent out all over the State.

Anterior Poliomyelitis. (Infantile Paralysis).

Baby Welfare.

Cancer.

Clean Milk in the Home.

Clean-Up-Day.

Diphtheria.

Epidemic Cerebro-Spinal Meningitis.

Hockworm.

House Fly.

Measles.

Medical Inspection of Schools.

Pellagra.

Rabies (Hydrophobia).

Sanitation in Small Towns.

Scarlet Fever.

Smallpox.

The Mosquito.

The Safe Disposal of Human Excreta.

Tuberculosis.

Typhoid Fever.

Whooping Cough.

This work we believe to be of the greatest necessity towards educating the people to enable them to keep well, and we appreciate the appropriation made by the Legislature for this purpose, and hope that it will be continued.

The Executive Department has had its work tremendously increased this year. We have only one clerk in

this department and her work is most satisfactorily done, she devoting more time than is devoted by any clerk in any department of the State government. We earnestly recommend that in view of the fact that she has been with the State Board of Health since 1907, that her salary be raised to \$1,000 per annum.

EPIDEMIC DISEASES.

South Carolina has been remarkably free from any very epidemic diseases this year, except pellagra, which has been markedly on the increase. Our efforts to fight diseases of known origin, such as typhoid fever, diphtheria, etc., have been crowned with success, and as we make out each year's report we can see that we have accomplished much. Pellagra, however, still remains the riddle that we have not yet solved. Light seems to be breaking in the East in regard to this disease. We are now able to say that we can do much towards preventing the occurring by proper diet and proper hygienic surroundings, and we believe that efforts systematically directed towards educating the people in regard to pellagra will stem the tide of this disease which has taken the awful toll of over 1200 lives in South Carolina during the past year, nearly equaling tuberculosis and having over three times the mortality of typhoid fever.

The State Health Officer has during the past year sent out postal cards, stamped and addressed, so that every physician would have at his hand the means of prompt notification to the State Health Officer, as required by law, of the diseases made reportable by the State Board of Health. Some physicians have been faithful in the performance of this duty, but a large number have neglected to fill in these cards. A Bill was introduced into the last Legislature for the better reporting of contagious diseases, but this Bill was, for some reason or other, unfavorably reported by the Medical Committee of the House. We urge the Legislature to pass this Bill. It is the Bill agreed upon by the Conference of State Health Officers of the United States, and would give to the State Board of Health accurate and timely knowledge of the

occurrence of dangerous diseases so that they might take steps to prevent the spread.

The following was the form of postal cards sent out with appended list of reportable diseases.

191.....

Disease or suspected disease.....

Patient's name....., Age....., Sex....., Color.....

Patient's address....., Occupation.....

School attended or place of employment.....

Number in household: Adults....., Children.....

Probable source of infection or origin of disease.....

If disease is smallpox, type.....; number of times successfully vaccinated and approximate dates

If typhoid fever, scarlet fever, diphtheria, or septic sore throat, was patient, or is any member of household engaged in the production or handling of milk.....

Signature of physician.....

Address of reporting physician.....

(Reverse of Card).

SECRETARY STATE BOARD OF HEALTH,
COLUMBIA, S. C.

INFECTIOUS DISEASES MADE REPORTABLE BY
THE STATE BOARD OF HEALTH OF SOUTH
CAROLINA.

Actinomycosis.

Anthrax.

Chickenpox.

Cholera, Asiatic (also cholera nostras when Asiatic

Cholera is present or its importation threatened).

Continued Fever (lasting seven days).

Dengue.

Diphtheria.

Dysentery:

(a) Amebic.

(b) Bacillary.

Favus.

German Measles.

Glanders.

Hookworm Disease.

Leprosy.
 Malaria.
 Measles.
 Meningitis:
 (a) Epidemic cerebrospinal.
 (b) Tubercular.
 Mumps.
 Ophthalmia Neonatorum (conjunctivitis of newborn infants).
 Paragonimiasis.
 Paratyphoid Fever.
 Plague.
 Pneumonia (acute).
 Poliomyelitis (acute infection).
 Rabies.
 Rocky Mountain Spotted, or Tick Fever.
 Scarlet Fever.
 Septic Sore Throat.
 Smallpox.
 Tetanus.
 Trachoma.
 Trichinosis.
 Tuberculosis (all forms, the organ or part affected in each case to be specified).
 Typhoid Fever.
 Typhus Fever.
 Whooping Cough.
 Yellow Fever.

DISEASES OF UNKNOWN ORIGIN.

Cancer.
 Pellagra.

FOOD AND DRUGS.

The Executive Department of this work is being carried on by the Department of Agriculture, Commerce and Industries under Commissioner E. J. Watson, and the work is progressing satisfactorily. We would call the attention of the Legislature to the fact that some law should be enacted in South Carolina against the exploitation through the newspapers of worthless nostrums that

contain a large percentage of alcohol and delude the public into paying large amounts of money for a very poor grade of whiskey. In view of the fact that the State has voted for prohibition, we think that any patent medicine containing over two per cent. of alcohol should not be sold.

REPORT OF COMMITTEE ON EPIDEMIC AND CONTAGIOUS DISEASES.

JAS. A. HAYNE, *Chairman.*

SMALLPOX.

It is certainly gratifying to see the results of the campaign against smallpox by vaccination. The year 1915 shows a most marked decrease in this disease. There have been only 328 cases reported to this office up to November 1st. The only county in which there was any serious outbreak of this disease was in Charleston, where there was quite a sharp outbreak of the disease in March, April and May of this year, with a recrudescence in July. There were altogether 142 cases reported from Charleston city and county. Prompt steps were taken by the Board of Health of Charleston and by the city Health Officer, Dr. J. M. Green, and since July there have been no further cases reported. In Charleston County much good work was done by Drs. E. H. Sparkman, Jr., R. B. Gantt, S. D. Doar and H. S. Mustard, who are appointed as special agents for the State Board of Health. The City of Columbia, with approximately forty thousand inhabitants, has had but one case of smallpox within the city limits this year. There was quite a serious outbreak of smallpox in Richland County, at Kingsville, and also in Calhoun County. This outbreak was caused by the fact that the railroad gangs employed by the Southern Railroad were not vaccinated, and thus became infected with the disease and spread it among the negroes where they were working. This outbreak was efficiently handled by Dr. W. W. Wolfe. In Richland County, Drs. W. W. Ray, L. M. Hook and Hubert Claytor rendered valuable assistance by vaccination and by placarding the houses of those infected. An epidemic of this disease occurred in Bamberg, where there were twenty-one cases, but prompt compulsory vaccination prevented further spread. A visit from Dr. L. A. Riser, agent for the State Board of Health, helped to cause the town to pass a compulsory

vaccination ordinance. Newberry County, which lead all other counties last year in the number of cases, has reported only two cases during the past season; no cases occurring in the City of Newberry. One of the most effective campaigns against this disease was conducted by Dr. A. H. Hayden, in Georgetown County.

The State Health Officer was called upon to visit only two localities this year in regard to the suppression of this disease, which is quite a contrast to the usual visits he is called upon to pay. This shows what efficient work has been done to educate the people towards what steps to take in case of threatened epidemics of smallpox. We are glad to say that it has cost the State less this year than it has in many years, and we hope to see this cost less and less each year. Richland County has vaccinated nearly every school child, and many counties have done a great deal in this respect, but until a vaccinated person becomes as rare as a person who does not wear a hat, smallpox will continue to manifest itself sporadically. We believe, however, that we can promise that for the next year or two there will be no widespread epidemic. There are two strains of smallpox in this country, one very virulent and the other very mild. The virulent strain has a very high death rate, and it is against this form that we are insisting upon complete vaccination of the population. There were only two deaths from smallpox in South Carolina during 1915. We have issued a bulletin on smallpox and have distributed it wherever epidemics occur.

The following table shows the number of cases of smallpox, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville .....	..	..	..	..	..	..	..	1	..	..	1	2
Aiken .....	..	..	..	..	..	..	..	..	..	..	1	1
Bamberg .....	..	..	2	1	..	..	..	..	..	..	..	3
Calhoun	12	2	..	..	..	..	..	..	..	..	..	14
Charleston	7	5	32	34	31	18	13	2	..	..	1	143
Cherokee .....	..	..	..	1	..	..	..	..	..	..	..	1
Chester .....	..	..	12	8	2	..	1	..	..	..	..	23
Chesterfield	1	..	..	..	..	..	..	..	..	..	..	1
Clarendon .....	..	4	..	..	..	..	..	..	..	..	..	4
Colleton .....	..	2	..	1	..	..	..	..	..	..	..	3
Darlington .....	..	..	1	..	..	..	..	..	..	..	..	1
Dorchester .....	..	2	..	1	..	..	1	..	..	..	..	4
Edgefield .....	..	..	..	3	..	..	..	..	..	..	..	3
Georgetown	16	4	..	4	..	..	..	..	..	..	..	24
Greenville	16	..	1	2	2	..	..	..	..	..	5	26
Horry .....	..	..	..	3	..	2	2	..	..	..	..	7
Laurens .....	..	2	1	..	..	..	..	..	..	..	..	3
Marlboro . . .	..	..	..	1	..	..	..	..	..	..	..	1
Newberry .....	..	..	..	2	..	..	..	..	..	..	..	2
Orangeburg	3	10	7	13	..	..	..	..	1	..	2	36
Richland	25	2	..	..	..	1	..	2	..	..	..	30
Spartanburg .....	..	..	..	..	..	1	..	..	..	..	..	1
Sumter .....	..	1	2	2	..	..	..	..	..	..	..	5
York .....	..	10	..	..	..	..	..	..	..	..	..	10
Total	80	44	58	76	35	22	17	3	3	0	10	348

The December reports for smallpox came too late to be included, but are as follows: Anderson 1. Charleston 8. Laurens 37.

This does not represent all the cases that have occurred, but we print it so that the Legislature will see that we are endeavoring to carry out the law which requires the reporting of communicable diseases.

VACCINE VIRUS STATEMENT. 1915.

ALEXANDER & CO. H. M.

1st Quarter

	Virus Rec'd at 6 1-2c Pr. Pt.	Cr. for Retd Virus	Voucher	Total
(Jan. Feb. Mch.) .	9,769	\$107.25	\$ 527.74	\$ 634.99
2nd. Quarter				
(Apr. May June)	8,000	60.77	459.23	520.00
3rd Quarter				
(July Aug. Sept)	6,000	288.80	101.20	390.00
4th Quarter				
(Oct. Nov. Dec.)	6,000	14.69	375.31	390.00
	<u>29,769</u>	<u>\$471.51</u>	<u>\$1,463.48</u>	<u>\$1,934.99</u>

MULFORD CO. H. K.

1st Quarter

(Jan. Feb. Mch.)	4,000	\$179.24	\$ 80.76	\$ 260.00
2nd. Quarter				
(Apr. May June)	5,000	135.88	189.12	325.00
3rd Quarter				
(July Aug. Sept.)	3,000	113.75	81.25	195.00
4th Quarter				
(Oct. Nov. Dec.)	7,000	162.76	292.24	455.00
	<u>19,000</u>	<u>\$591.63</u>	<u>\$ 643.37</u>	<u>\$1,235.00</u>

NAT. V & A INST.

1st Quarter

(Jan. Feb. Mch.)	8,500	\$ 66.04	\$ 486.46	\$ 552.50
2nd. Quarter				
(Apr. May June)	10,000	76.70	573.30	650.00
3rd Quarter				
(July Aug. Sept.)	6,200	148.39	254.61	403.00
4th Quarter				
(Oct. Nov. Dec.)	....	....	....	....
	<u>24,700</u>	<u>\$291.13</u>	<u>\$1,314.37</u>	<u>\$1,605.50</u>

SCHIEFFELIN & CO.

3rd Quarter

(?) (?) Sept.)	2,000	\$	\$ 130.00	\$ 130.00
4th Quarter				
(Oct. Nov. Dec.)	5,000	1.95	323.05	325.00
	<u>7,000</u>	<u>\$ 1.95</u>	<u>\$ 453.05</u>	<u>\$ 455.00</u>

The following is a list of the claims approved against several counties, according to Section 2, of Act 434, approved 22nd day of February, 1915.

Counties	Amounts
Bamberg	\$ 129.80
Berkeley	8.70
Calhoun	11.80
Charleston	89.80
Chester	94.50
Clarendon	43.20
Fairfield	24.70
Georgetown	225.20
Greenwood	12.50
Horry	11.10
Lancaster	3.20
Laurens	49.50
Newberry	10.00
Orangeburg	86.20
Richland	405.70
York	3.00
	<hr/>
	\$1,208.90

The following Doctors were appointed as special agents for the State Board of Health, under Section 2, of the same Act.

Counties.	Names.	Amounts
Anderson.....	H. H. Acker.....	
Bamberg.....	L. A. Hartzog.....	\$ 25.00
	J. R. McCormack	20.00
	L. A. Riser	5.95
Charleston.....	E. H. Sparkman, Jr.....	\$ 20.00
	R. B. Gantt.....	71.95
	S. D. Doar.....	35.00
	H. S. Mustard.....	15.00
Chester.....	G. A. Hennies.....	\$ 40.00
	C. A. McLurkin.....	30.00
	D. A. Coleman.....	25.00
Clarendon.....	A. S. Todd	\$ 20.00
Fairfield.....	R. G. Hamilton.....	\$ 15.00

Georgetown.....	T. R. Howle	\$ 30.00	
	A. H. Hayden.....	125.55	155 55
Laurens.....	J. L. Donnan.....	\$ 25.00	25 00
Lexington.....	R. E. Mathias.....	\$ 17.50	17 50
Richland.....	Hubert Claytor.....	\$ 20.00	
	L. M. Hook.....		
	L. M. Daniels (col.).....		
	W. D. Grigsby	5.00	25 00
York.....	J. S. Elliott.....	\$ 5.00	5 00

SCARLET FEVER.

This disease was reported as being present in epidemic form in Greenville, Chester, Clinton and many other places. It still remains of mild type. There have been only seven deaths from this disease reported this year. Every precaution should be taken to isolate the patient and to have no one but a trained nurse or some member of the family who is acting as a trained nurse to see the patient. The house should be placarded and children from the household should not be allowed to attend school for two weeks after exposure to the disease. We have issued a pamphlet on scarlet fever which represents the best obtainable present knowledge of this disease, and we send these pamphlets to physicians reporting the disease and to the families of those suffering with the disease so that everything can be done to prevent the epidemic.

The following table shows the number of cases of scarlet fever, by counties, reported monthly to the State Board of Health:

Counties	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Aiken .....	..	..	..	..	..	..	..	..	1	..	..	1
Barnwell .....	..	..	..	..	..	..	..	1	..	..	..	1
Charleston	5	6	..	1	..	..	..	..	..	3	1	16
Chester .....	..	..	1	..	..	1	1	4	1	7	5	20
Chesterfield .....	..	..	..	..	..	9	..	..	..	..	..	9
Darlington	4	..	..	..	..	..	..	..	..	..	1	5
Fairfield .....	..	1	..	..	..	..	..	..	..	..	..	1
Florence .....	..	..	..	..	..	..	..	1	..	..	1	2
Greenville	1	2	1	1	..	1	..	5	6	19	26	62
Kershaw .....	..	3	..	..	..	..	..	..	..	..	..	3
Laurens .....	..	..	..	..	..	..	4	10	3	7	4	28
Lexington .....	..	..	..	..	..	..	..	..	2	..	..	2
Marlboro .....	..	..	..	..	..	..	..	..	..	..	1	1
Newberry .....	..	1	2	..	..	..	2	..	3	..	..	12
Oconee .....	..	..	..	..	..	..	..	..	..	4	..	4
Orangeburg	1	1	..	..	..	..	1	1	..	..	3	7
Pickens .....	..	..	..	..	..	..	..	..	1	5	11	17
Richland	4	2	1	1	..	1	..	4	1	9	..	23
Saluda .....	..	..	..	..	..	..	..	2	..	..	..	2
Spartanburg	3	1	1	1	..	..	..	..	..	..	..	6
Sumter	1	1	..	..	..	..	..	..	..	..	..	2
Union .....	..	1	1	2	..	..	..	3	1	4	2	14
York .....	..	1	..	..	..	..	..	..	..	..	..	1
Total	19	20	7	16	0	12	8	31	19	58	59	249

The December reports for scarlet fever came too late to be included, but are as follows: Abbeville 1. Clarendon 3. Greenville 9. Pickens 4. Richland 5. Spartanburg 2. Union 4.

This shows that the usual rule as to its seasonal incidence is true of this year as of former years, the months of October, November and December showing the greatest number of cases.

DIPHThERIA.

This year shows relatively smaller number of cases of diphtheria than last year, but there have been very many cases in the State, and had it not been for the Legisla-

tures generous appropriation for the distribution of Diphtheria Antitoxin I would not now be able to report that there have been only 75 deaths from diphtheria. No work that has been done by the State Board of Health has reached as effectively the heart of the people as this free distribution of Diphtheria Antitoxin. When the poor man sees his child's life saved by the State, and realizes that had it not been for this appropriation he would have been unable to have purchased Diphtheria Antitoxin, he is ready and willing to pay the infinitely small amount of taxes that it requires to keep this remedy within easy reach of every household. Diphtheria Antitoxin has truly robbed diphtheria, once known as a strangler, of all its former terrors, but we must not forget that a certain proportion of cases die even after the administration of Diphtheria Antitoxin, and every effort should be used to properly quarantine the patient and keep the other children in the family away from school until the Health Officer can safely permit them to go.

The following table shows every county in which diphtheria has occurred, and that Diphtheria Antitoxin has been used.

The following table shows the monthly incidence by counties, of diphtheritic cases receiving antitoxin:

Counties	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Abbeville	2	1	..	..	..	..	1	9	2	4	...	4	23
Aiken	2	4	1	3	..	..	..	5	25	12	13	4	69
Anderson	4	5	2	2	..	2	8	20	20	38	28	13	142
Bamberg .....	..	..	..	..	..	..	..	..	2	..	..	..	2
Barnwell	1	..	1	..	..	..	1	3	..	..	2	4	12
Beaufort	1	3	..	3	..	..	..	..	..	..	5	..	12
Berkeley .....	..	2	..	..	..	..	..	..	..	1	..	..	3
Calhoun .....	..	..	..	..	..	1	1	..	..	..	..	..	2
Charleston ...	19	8	7	6	..	1	9	8	19	19	8	3	107
Cherokee	5	1	3	2	1	..	..	1	6	3	5	2	29
Chester .....	..	..	..	..	1	2	..	1	2	4	4	..	14
Chesterfield ..	3	1	2	2	3	5	3	2	23	29	14	14	101
Clarendon .....	..	..	..	1	2	..	..	2	3	2	7	4	21
Colleton .....	..	..	1	..	..	3	4	2	..	..	..	..	10
Darlington ...	2	..	1	3	1	2	..	5	4	18	4	7	47
Dillon	6	1	1	2	3	..	4	1	16	14	6	4	58
Dorchester ...	7	2	3	1	..	1	5	7	15	5	2	..	48
Edgefield .....	..	..	..	..	..	..	..	1	1	..	2	..	4
Fairfield .....	..	..	1	..	..	..	2	2	7	2	..	..	14
Florence	2	3	1	3	5	3	4	16	47	39	17	14	154
Georgetown ..	6	1	..	..	1	1	1	..	1	..	4	..	15
Greenville	4	4	3	3	1	3	2	8	15	9	4	9	65
Greenwood ....	..	1	1	..	1	..	1	7	12	2	7	3	35
Hampton	1	..	..	..	..	..	1	1	1	1	12	1	18
Horry	3	..	3	..	..	..	..	4	4	2	4	3	25
Jasper .....	..	..	..	..	..	..	..	..	..	..	..	..	..
Kershaw	3	2	4	3	2	1	..	4	11	7	5	5	47
Lancaster .....	..	1	1	4	2	..	..	..	20	20	14	2	64
Laurens	2	..	1	..	..	..	..	..	..	..	1	4	8
Lee .....	..	..	..	..	..	..	..	..	7	1	3	1	12
Lexington .....	..	3	..	..	..	..	4	2	13	3	6	2	33
Marion .....	..	..	..	..	..	6	1	4	1	3	7	1	23
Marlboro	4	1	4	3	..	4	5	7	3	3	2	1	37
Newberry .....	..	4	2	1	1	3	1	1	14	3	7	3	40
Oconee	3	3	1	2	1	1	..	4	6	14	2	4	41
Orangeburg ..	3	4	1	3	1	1	2	12	22	11	5	8	73
Pekens	9	..	..	1	1	..	..	4	2	..	4	1	22
Richland	9	8	10	11	7	5	4	10	20	19	11	10	124
Saluda	4	..	2	..	..	..	..	5	13	15	10	16	65
Spartanburg ..	9	8	9	5	..	..	3	2	60	44	21	10	171
Sumter	3	2	1	3	..	4	1	5	9	7	10	4	49
Union .....	..	1	3	6	..	1	..	..	3	..	2	3	19
Williamsburg ..	..	..	3	3	1	..	..	..	..	1	12	2	22
York	6	6	2	1	5	1	3	15	15	7	6	0	67
Total	123	80	75	79	40	51	71	180	444	362	276	166	1947

The amount of Diphtheria Antitoxin consumed as compared with 1914 is as follows:

	1000	3000	5000		1000	3000	5000
	Units	Units	Units		Units	Units	Units
1914				1915.			
Jan.	55	47	119	Jan.	78	62	128
Feb.	73	44	191	Feb.	41	46	115
Mch.	51	35	112	Mch.	42	40	137
Apr.	62	54	99	Apr.	73	34	115
May	65	67	128	May	46	25	62
June	18	32	89	June	51	24	58
July	43	30	83	July	41	43	81
Aug.	96	90	200	Aug.	75	44	162
Sept.	567	366	730	Sept.	404	299	674
Oct.	368	260	659	Oct.	253	151	496
Nov.	305	189	603	Nov.	230	137	362
Dec.	289	231	486	Dec.	503	317	805
	<hr/>	<hr/>	<hr/>		<hr/>	<hr/>	<hr/>
	1992	1445	3499		1837	1222	3195

The expenditure for Diphtheria Antitoxin as compared with 1914 is as follows:

1914.		1915.	
Jan.	\$ 328.95	Jan.	\$ 378.70
Feb.	477.90	Feb.	312.60
Mch.	296.75	Mch.	349.00
Apr.	301.90	Apr.	312.40
May	378.95	May	180.75
June	230.20	June	173.90
July	228.00	July	240.55
Aug.	569.50	Aug.	420.90
Sept.	2,237.60	Sept.	1,953.65
Oct.	1,853.00	Oct.	1,322.35
Nov.	1,613.65	Nov.	1,023.95
Dec.	1,428.35	Dec.	2,289.45
	<hr/>		<hr/>
	\$9,944.75		\$8,958.20

DIPHThERIA ANTITOXIN DISTRIBUTORS.

ABBEVILLE COUNTY.

Abbeville	McMurray Drug Co.
Donalds	Donalds Drug Co.
Due West	J. H. Bell & Son.

AIKEN COUNTY.

Aiken	W. J. Platt & Co.
Graniteville	W. J. Platt & Co., W. C. R. Turnbull
Langley	J. F. Baker
N. Augusta	C. A. Teague, Duggist, T. G. Kirshaw
Salley	J. W. Sanders, Peoples Pharmacy
Wagener.	

ANDERSON COUNTY.

Anderson	Owl Drug Co., Evans Pharmacy
Belton	Horton's Pharmacy
Honea Path	Bolt Drug Co.
Iva	Watson Drug Co.
Pelzer	W. W. Griffin
Pendleton	E. G. Evans & Co.
Townville	S. A. Wideman
Williamston	Buford-Griffin Co.

BAMBERG COUNTY.

Bamberg	H. W. Johnson
Denmark	Denmark Drug Co.
Ehrhardt	Erhardt Pharmacy
Olar	R. & H. Drug Store

BARNWELL COUNTY.

Allendale	R. P. Searson Drug Co.
Barnwell	R. A. Deason
Blackville	Wessinger's Pharmacy
Fairfax	W. R. Tuten
Williston	J. M. Smith & Son

BEAUFORT COUNTY.

Beaufort	C. G. Luther
Port Royal	M. B. Cope

BERKELEY COUNTY.

Monk's Corner	Monk's Corner Drug Store
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CALHOUN COUNTY.

St. Matthews Fair's Pharmacy.
 Fort Motte Fort Motte Drug Co.

CHARLESTON COUNTY.

Charleston G. W. Aimar & Co., D. P. Frierson, C.
 F. Schwettman & Son, W. H. Ziegler, L. G. Melfi.
 Mt. Pleasant A. H. Patjens

CHEROKEE COUNTY.

Blacksburg Carolina Drug Co.
 Gaffney Gaffney Drug Co.

CHESTER COUNTY.

Chester Chester Drug Co.

CHESTERFIELD COUNTY.

Cheraw T. E. Wannamaker & Sons.
 Chesterfield D. H. Laney
 Jefferson Jefferson Drug Co.
 McBee McBee Drug Co.
 Pageland Pageland Drug Co.

CLARENDON COUNTY.

Jordan L. W. Neules, M. D.
 Manning Dickson's Drug Store
 Packville Thos. W. Gunter
 Summerton D. O. Rhame, Leon Fisher
 Turbeville C. E. Gamble

COLLETON COUNTY.

Walterboro Walterboro Drug Co.

DARLINGTON COUNTY.

Darlington Peoples Drug Co.
 Hartsville Robt. Stewart, Jr.
 Lamar Palmetto Drug Co.

DILLON COUNTY.

Dillon Evans Pharmacy, McLaurin Drug Co.
 Latta E. A. Bethea
 Pages Mill Smith's Pharmacy

DORCHESTER COUNTY.

St. George P. M. Judy
 Summerville Tupper Pharmacy Co.

EDGEFIELD COUNTY.

Edgefield Penn & Holstein
 Johnston LaGrone Drug Co.

FAIRFIELD COUNTY.

Blythewood M. Langford
 Ridgeway J. W. Teams
 Winnsboro J. H. McMaster & Co.

FLORENCE COUNTY.

Florence F. U. Lake Drug Co.
 Lake City Lake City Drug Co.
 Scranton W. S. Lynch
 Timmons ville Timmons Drug Store, Cole Drug Co.

GEORGETOWN COUNTY.

Georgetown Iseman Drug Co.

GREENVILLE COUNTY.

Fountain Inn Redick's Pharmacy
 Greenville Carpenter Bros., L. H. Stringer
 Greer Corner Drug Co.
 Piedmont Suber Drug Co.
 Simpsonville Simpsonville Drug Co.

GREENWOOD COUNTY.

Greenwood Crawford Drug Co., Greenwood Drug Co.
 Ninety-Six Barr Drug Co.
 Ware Shoals Ware Shoals Mfg. Co., (Drug Dept.)

HAMPTON COUNTY.

Estill Estill Pharmacy
 Hampton Chas. A. Rush

HORRY COUNTY.

Conway Conway Drug Co.

JASPER COUNTY.

Ridgeland Louis McCaw.

KERSHAW COUNTY.

Bethune Bethune Drug Co., H. H. Holder.
 Camden W. R. Zemp.

LANCASTER COUNTY.....

Heath Springs.....Stover Pharmacy, People's Drug &
Grocery Co.

Kershaw Hayes & Gregory.

Lancaster Standard Drug Co.

LAURENS COUNTY.

Clinton Clinton Pharmacy

Laurens Powe Drug Co.

LEE COUNTY.

Bishopville Parker Drug Co.

LEXINGTON COUNTY.

Batesburg Ridgell Drug Co.

Chapin J. W. Eargle

Leesville Citizens Drug Co.

Lexington Harmon Drug Co.

Pelion D. R. Kneece

Swansea J. R. Lanford

MARION COUNTY.

Marion J. S. Davis

Mullins Palace Drug Co., Kirby's Pharmacy

Nichols Moody's Drug Store

MARLBORO COUNTY.

Bennettsville Douglas & Breeden

Blenheim Blenheim Drug Co.

Clio McLeod's Pharmacy

McColl Moore Drug Co.

NEWBERRY COUNTY.

Little Mountain J. M. Sease

Newberry Gilder & Weeks, W. G. Mayes

Prosperity Prosperity Drug Co.

OCONEE COUNTY.

Clemson College L. C. Martin

Fairplay W. C. Mays.

Seneca Seneca Pharmacy

Walhalla Dr. H. M. Barton

Westminster H. B. Zimmerman & Co.

ORANGEBURG COUNTY.

Branchville	W. F. McKewn.
Elloree	P. L. Felder.
Eutawville	E. O. Horger.
North	Davis Drug Co.
Orangeburg	J. G. Wannamaker Mfg. Co.
Springfield	Springfield Drug Co.

PICKENS COUNTY.

Central	Central Drug Co.
Easley	Palmetto Pharmacy
Liberty	Hunter's Pharmacy
Pickens	Pickens Drug Co.

RICHLAND COUNTY.

Columbia	Blanding Street Drug Store.
McGregor's Drug Store, Taylor Drug Co., Wingfield's Pharmacy.	
New Brookland	Burnett & Whetsell.

SALUDA COUNTY.

Ridge Spring	Ridge Drug Co.
Saluda	Saluda Drug Co.

SPARTANBURG COUNTY.

Campobello	Campobello Drug Co.
Converse	People's Drug Store
Cowpens	Cowpens Drug Co.
Inman	Inman Drug Co.
Landrum	Landrum Drug Co.
Pacolet	Pacolet Mfg. Co.
Spartanburg	Green's Drug Store, Arthur Irwin,
Ligon's Drug Store, K.-W.-N. Pharmacy.	
Woodruff	O. E. Westmoreland

SUMTER COUNTY.

Mayesville	King & Gardner, Bradley & Thomas
Sumter	Sibert's Drug Store

UNION COUNTY.

Jonesville	Jonesville Drug Co.
Union	Glymph's Pharmacy

WILLIAMSBURG COUNTY.

Greelyville	Zeigler's Drug Co.
Johnsonville	Cockfield Drug Co.
Kingstree	Gamble & Jacobs, Kingstree Drug Co.

YORK COUNTY.

Clover	Clover Drug Co.
Fort Mill	Parks Drug Co.
Rock Hill	Rock Hill Drug Co.
Sharon	Sims Drug Co.
Yorkville	York Drug Co.

Since last year Illinois has decided to give Diphtheria Antitoxin, to all, as we do in South Carolina, and it is a matter of pride with us we have always stood for free distribution and do not require persons obtaining this boon from the State to sign a paupers blank in order to obtain it.

MALARIA.

Malaria infection has probably been more responsible for the bad name given the Southern States for many years; owing to the fact that the anopheles mosquito, the female of which species is the only conveyer of the malarial parasite is found in all of the Southern States. It was not until 1898 that the true cause of malaria was understood. Since that time great strides have been made towards controlling this disease. There are three problems in controlling malaria. The first problem is to get rid of all anopheles mosquitoes which carry malaria; the second, by preventing mosquitoes that have been infected getting to well people to bite them; the third, by treating persons having malarial parasites in their blood so that they cannot infect mosquitoes. The first method is getting rid of breeding places; this involves drainage and clearing of swamp lands and the proper care of impounded waters so that they do not become dangerous to public health; second, by inducing people living in regions where there are many malarial carrying mosquitoes to properly screen their houses. Here is a point that must be insisted upon, and that is that the wire mesh used for screening must be what is known as 16 mesh wire, and

not the wire screening usually sold in the hardware stores, as this is 12 mesh and will keep out flies, but will not keep out mosquitoes. The third, by treating, properly, people who have malaria, and by proper treatment we mean giving them quinine in sufficient quantities and for a sufficient length of time so that the parasites are destroyed in the blood. The industrial growth of the South, through the utilization of its water powers has caused the production of artificial ponds in many portions of the State, and as little was known at the time of the building of these dams of the true cause of malaria, much inquiry has been done to the health of the people living near these ponds. Arbitrary distances have been set down as to the limits of the flight of the female anopheles. Much experimental work remains yet to be done before we can definitely say what distance from the edge of impounded waters a resident will be affected by the mosquito bred in these ponds. The attention of the Legislature is earnestly invited to the many suits that are pending in South Carolina on account of the impounding of waters without first having had a survey made by competent sanitary engineers to determine the probable effect upon the health of the community by the impounding of such waters. We believe that a law should be passed by the present General Assembly forbidding the impounding of waters in South Carolina unless such survey has been made, and a report submitted to the State Board of Health and an investigation made by the State Health Officer so that a reasonable compensation may be made to those who would be affected by the impounding of streams. The State Health Officer has been called upon as a witness in these cases this year, and it has been brought to his attention that there has been undoubtedly a large increase in the amount of malaria in the sections in which large bodies of water have been impounded. We refer especially to the Parr Shoals Hydro-electric Company and the Georgia-Carolina Power Company. The Georgia-Carolina Power Company, by a dam across Savannah River, has caused the waters of Stevens Creek in Edgefield County to spread out over much land and to furnish abundant breeding

places for the anopheles mosquito, and has caused much sickness along its banks.

The following is a report on Stevens Creek and the physical conditions there found by Dr. H. R. Carter, Senior-Surgeon, and Mr. J. A. LePrince, Sanitary Engineer. The State Health Officer accompanied Dr. Carter on this survey, and found conditions as described.

IN RE STEVENS CREEK.

Only a survey of the physical conditions of Stevens Creek was possible at this time of the year, and owing to lack of time this was not made in full detail. Obviously then there is not sufficient data for the determination of certain points, some of which are of prime importance, such as the amount of actual mosquito breeding. The conclusions presented then must be taken with this limitation, and are based on biological surveys made on places showing similar physical conditions and not on actual biological examination of *this* pond. Such an examination can only be made during the breeding season.

The part of the pond most suitable for anopheles production seems to be that between the sawmill and the mouth of Cheves, or Mill Creek. Indeed on the west side, this better part of Stevens Creek where it is within banks begins half a mile or more below Mill Creek, on the east side probably a quarter of a mile below it.

Above Mill Creek, although Stevens Creek is within banks, yet a certain number of branches and sloughs open into it, which as far as back water goes up them, extends the area of mosquito production. The creek itself, where within its banks should not be much of a factor in mosquito production, probably none at all, but it would require a biological survey to determine this.

The west side below the sawmill was not examined, but the eastern side showed much clearer banks than above it, and the water was broad and thus allowed a better chance of wave action.

There are three factors which especially tend to favor mosquito production on this creek (pond): (1) its narrowness, (2) the large amount of brush and trees in

and about it, (3) the fact that it must be kept more or less at a constant level.

The effect of these conditions on mosquito production is readily seen when you consider that the main agencies of mosquito control on a pond are wave action which drown the larvae and fish and predacious insects which eat them. The narrowness of the pond lessens wave action. The presence of trees and brush in and about the pond prevents the wind from striking the water and making waves. The brush, etc., in the water does not allow such waves as are formed to reach the banks. In addition to the district between the sawmill and Mill Creek, there is a large amount of sticks and trash, lodged as rafts or hammocks, which still further limits wave action. The value of the rise and fall of a pond is that the banks are left bare when the water is low, which naturally occurs in the season of mosquito production; also that the small floatage which shelters mosquito larvae from fish goes ashore when the water is high, if not kept back by brush, and is stranded and left ashore when the water falls. The intermittent rise and fall of the pond then is a very valuable method of keeping the edges of the pond clear and promoting fish control.

CONCLUSIONS.

(1) Physical conditions suitable for the breeding of anopholes mosquitoes are produced by the impounding of the waters of Stevens Creek.

(2) This production can be greatly lessened by (a) removing the growth in the pond area and (b) raising and lowering the level of the creek at suitable times.

EXPLANATION.

(a) The brush in the pond area, the bulk of it, should certainly be removed and heavy rafts of sticks and trash also.

The trees in the pond which prevents the winds from making waves had also best be removed. The same is true of trees close to the pond which do the same. Such pine trees as grow close enough to drop their needles in water should also, if not felled, be belted, as pine needles

floating on water are especially bad. The limbs of trees, brush, etc., must on no account be cut and left in the pond. They must be burnt or removed. Burning is best.

(b) If the pond can be kept at a high level, say from October or November to May or June, all the grass, weeds and small brush up to that level will be killed, if then during the breeding season it can be lowered, clean banks will be left which will furnish minimal protection to mosquito larvae against fish, and if there are smaller rises and falls during the breeding season they will serve, the pond having a clear surface, to land the floatage which comes down the creek from above the pond on the banks and thus *keep* the banks clean.

METHODS.

Lowering the pond, as Mr. Woods suggested, would enable the cleaning of the pond to be very completely accomplished and would, we are sure, greatly reduce mosquito breeding, possibly as much as may be required. It would, however, be less efficacious than the plan we suggested to him, by which clearing would be less completely done, but which allowed for the control, within limits, of the elevation of the water in the creek independently of that of the main pond. It may be, of course, that this last plan is not feasible, or that the difference in results does not justify the increased expenditures, for it is fair to say (1) that the clearing the pond of growth is the more important of the two remedial measures suggested, and (2) that the natural rise and fall of the creek from freshets to some extent will help to keep clean banks.

GENERAL.

In any case as the creek (pond) goes down, whether from natural or artificial causes, a watch should be kept on the pools left behind and ditches should be cut to connect them with the main creek, so as either to drain them or let fish into them. The same should be done for the pools formed in the branches by depositing sand at

the head of branch back water, and which naturally raises the middle and leaves pools on the sides.

H. R. CARTER, Senior-Surgeon.

J. A. LEPRINCE, Sanitary Engineer.

We are endeavoring to have introduced into the schools a thorough teaching of the cause and control of malaria, and in many schools a primer has been used. The primer in question, having been written by Dr. H. R. Carter, now Assistant Surgeon-General, U. S. Public Health Service, and is especially written so that it may be understood by children from the eighth to the tenth grade in public schools.

The following table shows the number of cases of malaria, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville	1	..	..	..	..	7	..	..	..	..	..	8
Aiken	1	4	1	4	3	..	4	..	1	..	..	18
Anderson .....	..	..	..	..	..	..	..	..	2	..	..	2
Bamberg .....	..	..	..	..	..	..	..	..	..	9	..	9
Barnwell .....	..	..	..	..	..	..	3	54	23	..	..	80
Beaufort	3	4	6	9	21	15	..	..	26	10	..	94
Berkeley	7	20	..	..	..	..	..	..	..	..	..	27
Calhoun	1	..	..	..	..	..	..	..	..	..	..	1
Charleston .....	..	23	7	..	45	..	..	..	..	..	..	75
Cherokee .....	..	..	..	..	..	1	..	3	..	..	..	4
Chester .....	..	1	2	3	..	6	..	8	..	..	..	20
Chesterfield	1	..	..	1	..	..	..	..	..	..	..	2
Colleton .....	..	6	9	..	..	..	..	..	..	..	..	15
Dillon .....	..	..	..	..	2	..	..	1	..	..	..	3
Edgefield .....	..	..	..	..	..	..	15	11	..	..	..	26
Florence .....	..	..	..	..	4	..	3	..	..	..	..	7
Georgetown .....	..	2	2	..	..	..	..	..	..	..	..	4
Greenville .....	..	..	..	1	..	2	..	5	6	3	..	17
Greenwood	1	1	..	..	..	..	1	4	3	..	..	10
Hampton .....	..	..	..	..	..	..	1	..	..	4	..	5
Kershaw .....	..	..	..	..	..	..	..	1	1	..	..	2
Laurens .....	..	..	..	1	..	2	2	2	..	2	..	9
Lexington .....	..	..	..	..	..	5	..	..	..	..	..	5
Marion .....	..	15	13	4	13	16	40	11	66	50	..	228
Marlboro .....	..	3	..	..	..	..	..	..	..	..	..	3
Newberry .....	..	..	4	..	5	8	41	2	..	..	..	60
Orangeburg .....	..	5	..	..	24	..	..	..	..	..	..	29
Richland .....	..	..	..	..	5	..	..	2	1	..	..	8
Saluda .....	..	..	..	1	..	11	..	9	..	..	..	21
Spartanburg	3	1	..	..	1	1	2	4	6	3	..	21
Sumter .....	..	1	..	..	..	..	..	..	..	..	..	1
Union .....	..	..	..	..	6	3	5	3	4	..	..	21
Williamsburg .....	..	..	24	..	..	..	..	..	..	..	..	24
York .....	..	..	..	1	..	..	13	..	4	6	..	24
Total	18	86	68	25	129	77	130	120	143	87	0	883

The December reports for malaria came too late to be included, but are as follows: Greenville 1. Kershaw 3. Marion 15. Union 4.

These are the cases reported by physicians during the year.

The following table shows the number of cases of malaria, by counties, reported monthly to Surgeon R. H. Von-Ezdorf of the U. S. Public Health Service, on cards sent out from this office:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Abbeville	3	2	7	7	15	32	21	25	40	152
Aiken	2	3	...	5	5	3	14	19	30	81
Anderson	1	...	3	...	...	5	3	2	5	19
Bamberg	1	1	5	...	...	5	...	...	...	12
Barnwell	6	10	23	11	13	40	23	42	57	225
Beaufort	2	9	...	6	16	19	8	11	12	83
Berkeley .....	...	12	...	40	29	35	...	...	16	132
Calhoun	2	3	...	...	...	...	25	55	70	155
Charleston	1	3	...	5	3	11	4	4	19	50
Cherokee .....	...	...	...	...	...	...	2	5	12	19
Chester	12	28	...	34	40	56	9	15	29	223
Chesterfield .....	...	...	4	...	4	3	8	9	7	35
Clarendon	2	...	3	3	2	2	3	4	14	33
Colleton	11	10	5	...	...	...	...	...	...	26
Darlington	14	7	13	6	16	13	17	22	22	130
Dillon	3	...	6	7	...	8	9	1	...	34
Dorchester	9	14	...	6	12	14	...	...	...	55
Edgefield	3	4	4	...	...	...	3	5	21	40
Fairfield	34	5	10	30	43	53	42	63	76	356
Florence	16	19	4	8	10	9	1	1	5	73
Georgetown	32	...	40	7	10	12	...	10	...	111
Greenville	5	7	4	3	4	12	4	8	7	54
Greenwood .....	...	1	1	...	...	6	6	6	8	28
Hampton .....	...	...	6	...	...	...	...	...	...	6
Horry .....	...	1	6	...	...	...	...	...	...	7
Jasper .....	...	...	...	...	...	...	...	...	...	0
Kershaw	2	3	2	3	4	3	21	17	30	85
Lancaster .....	...	4	...	...	...	...	26	35	65	130
Laurens	3	3	6	...	2	4	5	32	25	80
Lee .....	...	...	...	6	4	3	...	...	7	20
Lexington	2	3	4	18	12	15	25	22	49	150
Marion	1	10	...	4	7	10	11	35	127	205
Marlboro .....	...	1	2	...	5	1	3	14	25	51
Newberry	2	1	40	33	86	138	218	220	322	1060
Oconee .....	...	...	...	...	...	...	1	...	1	2
Orangeburg	24	2	16	98	146	309	11	22	40	668
Pickens .....	...	...	...	...	...	2	2	...	...	4
Richland	3	10	30	8	12	23	39	71	95	291
Saluda .....	...	...	7	...	...	...	...	...	...	7
Spartanburg .....	...	3	13	8	1	3	2	12	18	60
Sumter	8	5	...	...	...	...	...	...	...	13
Union	6	2	8	...	...	...	...	...	...	16
Williamsburg ..	11	28	33	...	...	...	21	6	20	119
York .....	...	3	20	5	11	10	20	23	42	134
Total	221	217	325	361	512	859	607	816	1316	5234

DEATHS FROM MALARIA IN SOUTH CAROLINA.
FROM
JANUARY 1, 1915, TO OCTOBER 31, 1915.

Counties	Number	Rate
Abbeville	1	2.8
Aiken	5	11.5
Anderson	1	1.3
Bamberg	12	62.5
Barnwell	7	20.5
Beaufort	30	74.7
Berkeley	24	102.2
Calhoun	2	11.
Charleston	64	72.
Cherokee	0	
Chester	4	13.4
Chesterfield	1	3.4
Clarendon	5	14.5
Colleton	42	115.3
Darlington	2	5.2
Dillon	1	4.
Dorchester	10	53.4
Edgefield	4	13.4
Fairfield	10	34.
Florence	9	22.8
Georgetown	46	202.4
Greenville	0	
Greenwood	0	
Hampton	3	74.7
Horry	6	20.8
Jasper	9	74.7
Kershaw	1	3.4
Lancaster	9	32.3
Laurens	4	9.1
Lee	2	7.3
Lexington	4	11.5
Marion	5	22.1
Marlboro	5	15.1
Newberry	22	59.6
Oconee	0	
Orangeburg	38	62.4
Pickens	0	
Richland	4	6.6
Saluda	0	
Spartanburg	0	
Sumter	5	12.1
Union	2	6.2
Williamsburg	13	31.9
York	7	13.8
TOTAL	419	

It must be understood that many cases of typhoid fever are called malaria, therefore the death rate is apparently greater than it really is.

TYPHOID FEVER.

We believe that we can safely say that there has been considerable reduction in the number of cases of typhoid fever occurring in the State this year. We have, for the first time, a Bureau of Vital Statistics to furnish us with accurate data upon which we can base an opinion as to whether the educational work that has been done in the State, especially to typhoid fever, is bearing fruit or not. For the ten months, from January 1, to November 1, 474 deaths have been registered, with the Bureau of Vital Statistics, from this disease. The usual death rate from typhoid fever is ten deaths for every hundred cases. This method of estimating the number of cases, which have occurred, would show that there have been 4,740 cases of typhoid fever in South Carolina and would give us a case rate of 316 per hundred thousand population, which when we consider that certain cities in the United States have as low a rate as 20 per hundred thousand, shows us how much work yet has to be done before we can say that we have successfully controlled this disease, which is a disease about which there is no mystery, its mode of transmission is well known and proper disposal of human excreta and proper protection of water supplies, clean milk in the homes, destruction of the breeding places of flies and the proper isolation and screening of patients will absolutely stamp out this disease. In the meantime an intensive campaign will be conducted in each county through our Community Units to so teach and impress upon the people what we mean by sanitation and what it will accomplish that no one can help knowing when they are transgressing sanitary laws. By flies, by filth, by impure water, by dirty milk, this disease is carried and civilization means elimination of these factors. As long as communities permit soil pollution and polluted streams, so long will typhoid fever flourish. I append rules, which will, if adopted in a community, stamp out an epidemic.

RULES FOR PREVENTING TYPHOID FEVER

For the Individual:

1. Keep away from all known or suspected cases of typhoid.
2. Wash hands thoroughly before meals. Do not use "roller towels."
3. Use drinking water only from sources known to be pure, or, if this is not possible, use water that has been purified by municipal filtration or by hypochlorite treatment or by boiling in the household.
4. Avoid bathing in polluted water.
5. Use pasteurized or boiled, instead of raw milk.
6. Select and clean vegetables and berries, that are to be eaten raw, with greatest care.
7. Avoid eating "fat" raw oysters, and, in general, oysters and other shell-fish whose origin is not known.
8. Be vaccinated against typhoid in all cases in which any special exposure is known or feared.

For the Community:

1. Insist on the hearty co-operation of all persons with an efficient health officer.
2. Require notification and a reasonable degree of isolation of every known or suspected typhoid case.
3. Exercise strict control over the disinfection of known typhoid excreta.
4. Insist on pure or purified water supplies.
5. Required pasteurization of milk supplies.
6. Regard all human excreta as possibly dangerous, and control their disposition in such a way as to prevent contamination of food or drink.

These rules are immediately sent by the State Board of Health to all communities where typhoid fever is reported as being epidemic, with the request that they be placed in general stores, in the post-office and conspicuous places so that all may become acquainted with them. We wish particularly to lay stress upon the necessity for typhoid immunization. This simple and harmless procedure is done more to prevent epidemics and to lessen

the number of cases in South Carolina than any other one factor.

We have sent out from the Laboratory this year the following number of ampuls of typhoid prophylactic, which was made entirely at the State Laboratory.

1915	Ampuls.
Jan.	320
Feb.	537
Mch.	1033
Apr.	1736
May	2533
June	7825
July	8115
Aug.	7850
Sept.	2250
Oct.	1339
Nov.	1238
Dec.	
<hr/>	
Total	

The following table shows the number of cases of typhoid fever, by counties, reported monthly to the State Board of Health.

Counties	Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville	1	..	1	3	2	10	13	49	1	3	8	91
Aiken	1	..	1	..	..	..	2	3	7	..	..	14
Anderson .....	..	..	..	..	..	..	..	..	4	..	..	4
Bamberg .....	..	..	1	..	..	..	..	5	2	..	..	8
Barnwell .....	..	..	..	1	3	10	9	..	..	2	..	25
Beaufort .....	..	..	..	..	2	5	..	..	..	..	..	7
Berkeley .....	..	..	..	..	1	1	1	3	..	..	..	6
Calhoun	1	..	1	..	..	..	..	..	1	..	..	3
Charleston	7	4	3	7	5	49	64	25	..	20	11	195
Cherokee .....	..	..	..	..	1	..	4	5	..	..	..	10
Chester	3	3	..	..	..	2	10	5	2	2	1	28
Chesterfield .....	..	..	..	..	..	6	1	..	3	..	..	10
Clarendon	2	..	1	..	2	3	4	7	2	1	2	24
Colleton .....	..	..	..	..	..	..	..	..	11	..	..	11
Darlington .....	..	..	..	..	..	1	1	3	2	..	1	8
Dorchester .....	..	..	..	..	..	..	2	3	2	..	1	8
Edgefield .....	..	..	..	..	..	..	1	7	..	..	..	8
Fairfield .....	..	..	..	..	3	..	..	1	..	..	..	4
Florence .....	..	..	..	..	2	1	1	4	3	..	..	11
Greenville	8	2	..	..	5	15	24	25	41	20	4	144
Greenwood	3	1	..	..	1	6	1	4	3	2	..	21
Hampton .....	..	..	..	..	..	..	..	3	..	..	..	3
Horry .....	..	..	..	..	1	2	..	..	..	1	..	4
Kershaw .....	..	..	..	..	2	12	1	2	1	..	..	18
Lancaster .....	..	..	..	..	..	3	2	3	..	..	3	11
Laurens .....	..	..	..	..	..	4	3	12	3	2	2	26
Lee .....	..	..	..	..	..	3	..	..	..	..	..	3
Lexington .....	..	..	..	..	..	1	..	..	..	..	..	1
Marion .....	..	..	3	..	..	..	4	2	2	1	..	12
Marlboro .....	..	..	..	..	3	6	7	3	1	..	..	20
Newberry .....	..	..	..	..	3	11	4	1	6	..	..	25
Oconee .....	..	..	..	..	3	1	3	4	..	4	..	15
Orangeburg	3	..	..	2	13	16	5	16	2	..	4	61
Pickens	1	..	..	..	..	..	1	5	..	3	4	14
Richland .....	..	1	..	4	19	32	41	37	17	21	..	172
Saluda .....	..	..	..	1	..	2	..	3	..	..	..	6
Spartanburg	1	..	1	..	..	6	1	6	14	3	2	34
Sumter	2	1	..	..	2	8	..	..	..	3	2	16
Union .....	..	..	3	1	1	3	5	3	4	11	2	33
Williamsburg ...	..	..	..	..	1	1	..	..	..	..	..	2
York .....	..	1	..	..	..	..	2	1	..	..	1	5
Total	33	13	15	19	75	220	217	250	134	99	46	1121

The December reports for typhoid fever came too late to be included, but are as follows: Clarendon 2. Greenville 3. Lancaster 1. Pickens 2. Richland 9. Union 6.

It is probable that not more than one-half of the physicians report as they should. The Bureau of Vital Statistics furnish us with the number of deaths, but it is then too late to fight the disease. What we want to know is when the disease occurs, the first cases in a community so that we can prevent other cases. The law requires physicians to make this report, but public sentiment does not force physicians to obey this law.

TUBERCULOSIS.

Your Honorable Body responded generously to our appeal for a Tuberculosis Sanatorium last year and gave us eleven thousand dollars, with which we have equipped and maintained the sanatorium until January 1, 1916. We again come before your Honorable Body, asking that you give us funds to build and equip a ward for women. This ward is demanded. There are probably more women with tuberculosis than men and we must make some provision for them. We are also asking for a dining room and kitchen for the patients. We will then be able to take care of thirty-two patients.

Tuberculosis is being slowly conquered in the United States. The death rate is year by year lowered, but tuberculosis still remains the captain of the companies of death, taking from our people annually two thousand. The Bureau of Vital Statistics has record of 1735 deaths from this disease from January 1, to October 31, 1915.

The following table shows the number of cases of tuberculosis, by counties, reported monthly to the State Board of Health:

Counties	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville	3	..	4	2	1	2	..	..	..	..	..	12
Aiken .....	..	..	..	..	..	..	..	1	..	..	..	1
Anderson .....	..	..	..	..	..	..	..	..	1	..	..	1
Barnwell .....	..	..	..	..	2	..	..	6	..	1	..	9
Beaufort	1	1	7	..	1	..	2	..	4	2	2	20
Calhoun	1	..	..	..	..	..	..	..	..	..	..	1
Charleston .....	..	6	7	6	3	3	..	..	..	..	1	30
Chester	1	4	2	3	3	1	1	..	..	..	..	15
Chesterfield .....	..	..	..	..	..	3	1	..	1	1	1	7
Darlington	1	..	..	..	..	..	..	..	..	1	..	2
Dillon .....	..	..	3	1	1	1	..	2	..	..	..	8
Dorchester	2	..	..	..	..	..	1	2	..	..	..	5
Edgefield .....	..	..	..	..	..	..	1	..	..	..	..	1
Fairfield .....	..	..	1	..	..	..	..	1	..	..	..	2
Florence .....	..	..	..	..	..	1	1	..	..	..	..	2
Georgetown .....	..	1	..	..	..	..	..	..	..	..	..	1
Greenville	6	4	6	4	3	4	3	6	..	..	..	36
Greenwood	1	1	1	..	..	2	..	..	..	..	..	5
Hampton .....	..	..	..	..	..	..	..	2	..	..	..	2
Horry .....	..	..	..	..	..	..	..	..	1	..	..	1
Kershaw	1	..	..	..	..	..	1	..	..	..	..	2
Lancaster .....	..	..	5	..	..	..	..	..	..	..	..	5
Laurens	3	..	..	1	1	2	..	2	1	..	..	10
Lexington	15	7	..	1	1	1	..	..	..	1	..	26
Marion	3	4	..	2	5	6	3	1	7	9	..	40
Oconee .....	..	1	..	..	..	..	1	..	..	..	..	2
Orangeburg	5	1	..	1	2	1	..	1	..	..	1	12
Pickens .....	..	..	2	2	..	..	..	..	..	2	6	12
Richland	1	6	2	5	6	4	10	..	..	4	..	38
Saluda .....	..	..	1	..	..	2	..	1	..	..	..	4
Spartanburg	2	3	2	3	1	9	2	1	1	..	..	24
Sumter	2	5	3	8	1	3	..	..	1	1	..	24
Union	1	..	..	..	2	..	3	..	..	..	..	6
Williamsburg .....	..	..	2	1	1	..	..	..	..	..	..	4
York	1	1	..	3	..	..	1	..	..	..	..	6
Total	50	45	48	43	34	45	31	26	17	22	12	376

The December reports for tuberculosis came too late to be included, but are as follows: Abbeville 1. Greenville 3. Marion 7. Pickens 2. Richland 2. Spartanburg 3. Sumter 1. Union 1.

We are glad to report that several counties have flourishing tuberculosis camps which are doing an immense amount of good. We wish to call special attention to the Richland County Camp and the Greenville Sanatorium. The Greenville Sanatorium has been recently opened. We believe that each county should have such a camp, where tuberculosis in its latter stages can be taken care of and its spread in this way checked.

MEASLES AND WHOOPING-COUGH.

This year was no exception from other years in the amount of measles and whooping-cough in the State. The task of letting parents know that children do not have to have measles and whooping-cough in order to develop into men and women is a task that seems well-nigh hopeless, but we will continue to present to the parents the fact that whooping-cough kills, annually, more children under two years of age than any other disease; that measles undermines the constitution of the child, makes it subject to bronchopneumonia and tuberculosis, and does much towards making the mortality of infancy in childhood so high. For the ten months of 1915 we had four deaths put down from measles, but we had 258 put down from bronchopneumonia, a direct sequela of this disease. Whooping-cough claimed 193 victims. We hope some day to be able to ride in a railroad train without hearing a child whoop, and also to attend a picture show without being distracted by the whoop of the children with the whooping-cough. We believe that the Chicago plan is feasible, namely: to keep children who have whooping-cough confined to their houses and yard for two weeks, and then require that they wear a badge conspicuously, which badge shall have upon it the words WHOOPING-COUGH, thus enabling mothers to prevent their babies from coming in contact with whooping-cough.

The following table shows the number of cases of measles, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Aiken	1	..	1	..	..	..	..	..	..	..	..	2
Beaufort .....	..	..	2	4	4	4	..	..	..	..	..	14
Charleston .....	..	1	..	..	..	..	..	..	..	..	..	1
Florence	1	..	..	..	..	..	..	..	..	..	..	1
Greenville .....	..	1	1	..	..	..	..	..	..	..	..	2
Laurens .....	..	1	..	..	..	..	..	..	..	..	..	1
Newberry .....	..	..	..	10	..	..	..	..	..	..	..	10
Richland	1	..	1	..	1	..	..	..	..	1	..	4
Union .....	..	..	..	1	..	..	..	..	..	..	..	1
York .....	..	..	1	..	..	..	..	..	..	..	..	1
Total	3	3	6	15	5	4	0	0	0	1	0	37

The December reports for measles came too late to be included, but are as follows: Clarendon 4. Greenville 2. Marion 2. Richland 1.

The following table shows the number of cases of whooping-cough, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville .....	...	...	...	...	...	8	...	...	...	...	...	8
Aiken .....	...	...	...	1	...	...	...	...	...	...	...	1
Barnwell .....	...	...	...	...	15	3	3	...	...	...	...	21
Beaufort .....	...	...	...	...	...	...	...	...	1	...	...	1
Berkeley .....	...	...	...	...	...	...	1	...	...	...	...	1
Charleston	28	19	...	...	...	72	...	...	...	20	...	139
Chester	1	...	...	1	...	4	1	...	...	...	...	7
Chesterfield	35	...	30	3	...	3	...	...	...	2	...	73
Clarendon .....	...	18	22	...	2	...	...	...	...	...	...	42
Dillon .....	...	...	...	7	3	...	...	...	...	...	...	10
Edgefield .....	...	...	...	...	...	...	7	1	...	...	...	8
Fairfield	2	...	...	...	2	...	...	...	...	...	...	4
Georgetown .....	...	10	2	4	...	...	...	...	...	...	...	16
Greenville	16	19	13	1	14	9	3	1	...	2	...	78
Greenwood .....	...	8	33	10	16	11	...	...	...	...	...	78
Horry .....	...	...	...	...	2	...	...	...	...	...	...	2
Kershaw .....	...	...	...	...	...	...	...	...	...	...	...	1
Lancaster	2	...	...	2	...	15	...	2	1	...	...	22
Laurens	2	...	...	...	...	...	...	2	...	...	...	4
Lexington .....	...	13	...	12	2	14	...	5	...	...	...	46
Marion .....	...	...	...	2	2	...	...	1	...	...	...	5
Newberry .....	...	...	...	...	2	5	...	...	2	...	2	11
Oconee .....	...	...	1	...	...	...	...	...	...	...	...	1
Orangeburg	25	24	14	7	1	3	...	1	...	...	...	75
Pickens .....	...	2	4	...	...	...	...	...	...	...	4	10
Richland	4	12	...	62	37	31	9	5	...	2	...	162
Saluda .....	...	...	...	...	...	1	...	13	...	...	...	14
Spartanburg .....	...	1	1	...	...	40	...	15	7	...	...	64
Sumter .....	...	...	...	1	...	...	...	...	...	...	...	1
Union .....	...	...	...	...	...	...	2	...	2	...	...	4
York .....	...	...	...	...	1	...	2	...	...	...	...	3
Total	115	127	120	113	99	219	28	26	26	11	28	912

The December reports for whooping-cough came too late to be included, but are as follows: Greenville 2. Lancaster 2. Marion 4. Union 5.

ANTERIOR POLIOMYELITIS.

(Infantile Paralysis).

There have been only two cases of this disease reported to our office this year. We are very much afraid that this is too good to be true, but feel sure there has been no epidemic in this State. This disease is responsible for the many cases of paralysis among the children in the State.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

We again are glad to report that there has been no epidemic of this disease in this State this year.

The following table shows the number of cases of cerebro-spinal meningitis, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	June	Total
Chester	1	.....	.....	.....	1
Florence	1	.....	.....	.....	1
Lexington	1	2	.....	.....	3
Marion .....	.....	.....	1	.....	1
Orangeburg .....	.....	.....	2	1	3
Richland .....	.....	1	.....	.....	1
Spartanburg	3	.....	.....	1	4
Total	5	3	3	3	14

The State Board of Health has furnished Meningitis Serum, as required by law, to the following physicians:

Dr. M. S. Salley Orangeburg.
 Dr. Robt. T. Ferguson Gaffney.
 Dr. N. B. Edgerton Columbia.
 Dr. D. J. Hydriek Orangeburg.
 Dr. J. J. Cleckley Bamberg.
 Dr. S. E. Harmon Columbia.
 Dr. A. S. Townsend Bennettsville.

Forty-nine deaths from cerebro-spinal meningitis have been reported, but we feel sure that physicians have not been careful in differentiating tubercular meningitis and meningitis due to other causes from the epidemic form of cerebro-spinal meningitis.

The following are the rules, the enforcement of which is required by the State Board of Health in cases of cerebro-spinal meningitis.

RULES TO BE ADOPTED BY LOCAL BOARDS OF HEALTH IN CASES OF EPIDEMIC CEREBRO-SPINAL MENINGITIS.

1. Quarantine the house, keeping in all who have been in contact with the patient.
2. The patient and nurse must be isolated in one room of the house.
3. All discharges of the patient, especially from the throat and nose, and everything used by the *patient and* attendants should be thoroughly disinfected; also, after the termination of the case, the room in which the patient was treated and everything in it.
4. Those who have come in contact with the disease must be kept under quarantine for three (3) weeks, their nose and throat sprayed with an antiseptic solution during this period.

NOTIFY THE STATE HEALTH OFFICER AT COLUMBIA IMMEDIATELY UPON THE APPEARANCE OF THE CASE.

PELLAGRA.

We regret to report that pellagra is apparently on the increase.

The following table shows the number of cases of pellagra, by counties, reported monthly to the State Board of Health:

Counties.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Total
Abbeville	2	..	4	3	2	10	1	..	..	1	1	24
Aiken .....	..	..	2	..	..	..	..	1	..	..	..	3
Anderson .....	..	..	1	..	..	..	1	..	..	..	..	2
Bamberg .....	..	..	..	..	..	..	..	1	..	..	..	1
Barnwell .....	..	..	..	..	..	..	1	3	1	..	..	5
Beaufort	1	1	..	4	1	3	4	..	..	1	..	15
Berkeley .....	..	..	..	1	1	1	1	..	..	..	..	4
Charleston .....	..	..	3	13	16	1	..	..	..	..	..	33
Cherokee .....	..	..	..	..	1	..	..	..	..	..	..	1
Chester .....	..	..	1	3	3	12	1	4	..	..	..	24
Chesterfield .....	..	..	1	..	..	3	1	..	3	..	..	8
Clarendon .....	..	..	..	..	..	7	..	..	..	..	..	7
Darlington .....	..	..	1	..	..	2	1	..	1	..	..	5
Dillon .....	..	..	1	2	1	..	..	2	..	..	..	6
Dorchester .....	..	..	1	..	..	..	..	1	..	..	..	2
Edgefield .....	..	..	..	..	..	..	4	5	..	..	..	9
Fairfield .....	..	..	1	..	..	..	1	..	..	..	..	2
Florence .....	..	..	..	..	2	25	6	..	..	..	..	33
Georgetown .....	..	..	2	4	..	..	1	..	..	..	..	7
Greenville	1	..	2	..	6	5	7	7	1	2	..	31
Greenwood	4	1	6	1	5	22	2	1	1	1	1	45
Horry .....	..	..	..	..	..	2	7	..	..	..	..	9
Kershaw .....	..	..	1	..	3	7	3	..	1	1	..	16
Laurens	1	..	1	2	4	4	1	2	..	2	..	17
Lexington	1	..	..	..	..	3	..	..	..	..	..	4
Marion .....	..	5	5	2	5	..	22	9	7	1	..	56
Marlboro	1	..	..	..	14	45	2	..	..	..	..	62
Newberry .....	..	..	..	1	1	7	..	..	..	..	..	9
Oconee .....	..	..	..	..	2	..	..	..	..	..	..	2
Orangeburg .....	..	..	..	..	6	6	1	2	..	..	1	16
Pickens	1	..	..	..	..	..	..	..	..	..	..	1
Richland .....	..	..	..	2	21	8	11	5	19	..	..	66
Saluda	1	..	..	..	..	12	..	9	..	..	..	22
Spartanburg	1	2	3	3	8	31	11	11	11	10	3	94
Sumter .....	..	..	1	3	2	3	..	..	..	..	..	9
Union .....	..	..	..	..	10	..	7	1	2	1	..	21
Williamsburg .....	..	..	1	2	14	13	4	..	..	..	..	34
York .....	..	..	..	2	1	2	3	2	2	..	2	14
Total	14	9	38	48	129	234	104	66	49	20	8	719

The December reports for pellagra came too late to be included, but are as follows: Abbeville 1. Beaufort 1. Kershaw 1. Laurens 1. Marion 7. Spartanburg 2.

These are the cases reported by physicians during the year.

DEATHS FROM PELLAGRA IN STATE OF SOUTH
CAROLINA FROM JANUARY 1, 1915, TO OCTO-
BER 31, 1915.

Counties	No. Deaths	Population	Rate
Charleston	166	88,902	186.7
Greenwood	52	37,327	139.3
Sumter	57	41,445	137.5
Chester	38	29,853	127.2
Greenville	89	76,228	116.7
Richland	67	60,181	111.3
Anderson	85	76,866	110.5
Georgetown	25	22,720	110.
York	49	50,900	96.2
Florence	37	39,467	93.7
Marion	20	22,615	88.4
Horry	25	28,910	86.4
Dillon	21	24,832	84.5
Florence	37	43,749	84.5
Lee	22	27,274	80.6
Edgefield	24	29,759	80.6
Union	25	32,235	77.5
Spartanburg	68	92,909	73.1
Cherokee	21	28,722	73.1
Lancaster	18	27,884	64.5
Dorchester	12	18,734	64.
Newberry	23	36,909	62.3
Pickens	17	28,611	59.4
Marlboro	19	33,060	57.4
Calhoun	10	18,115	55.2
Williamsburg	21	40,758	51.5
Darlington	20	38,811	51.5
Abbeville	18	35,545	50.6
Orangeburg	30	60,866	49.2
Aiken	21	43,334	48.4
Kershaw	14	29,188	47.9
Oconee	14	29,291	47.7
Bamberg	9	19,201	46.8
Berkeley	11	23,487	46.8
Lexington	15	34,891	42.9
Beaufort ... }	23	56,211	40.9
Hampton ... }			
Jasper }			
Barnwell	14	34,209	40.9
Fairfield	12	29,450	40.7
Saluda	8	20,986	36.3
Chesterfield	10	29,411	34.
Colleton	12	36,412	32.9
Clarendon	9	34,289	26.2
Hampton	4		
Jasper	3		
State Hospital for Insane	18		

PELLAGRA DEATHS IN SOUTH CAROLINA FROM JANUARY 1, 1915, TO OCTOBER 31, 1915, AR- RANGED ACCORDING TO COLOR AND SEX.

WHITE

Sex	Number	Proportion
Male	144	8.9
Female	278	17.3

NEGRO

Male	263	16.4
Female	621	38.6
Total	1306	81.2

The U. S. Public Health Service is maintaining a hospital in Spartanburg for the treatment of pellagra, and has furnished this office with reports from that hospital.

We append a consolidated report from that institution.

Mo.	Admitted to Hospital (White)		Admitted as Out-Patients (White) (Col.)			Total
	Male	Female	Male	Female	Male	
May	3	4	2	3	...	12
June	8	5	1	1	1	16
July	3	8	...	2	...	13
Aug.	4	6	...	4	...	14
Sept.	2	4	...	3	...	9
Oct.	3	6	...	2	...	11
Nov. ....	...	5	1	...	...	6
Dec. ....	...	...	...	...	...	...
Total ...	23	38	4	15	1	81

Dr. Joseph Goldberger has charge of the pellagra investigation of the U. S. Public Health Service, and has announced the following report; the results of certain experiments performed in a camp connected with the camp of State convicts of Mississippi.

"The farm consists of 3,200 acres, in the center of which is the convict camp. The final experiment was undertaken for the purpose of testing the possibility of producing pellagra in healthy human white adult males, by a restricted, one-sided, mainly carbohydrate (cereal) diet. Of eleven convicts who volunteered for this experiment, six developed a typical dermatitis and mild nervous gastro-intestinal symptoms.

"Experts, including Dr. E. H. Galloway, the Secretary of the Mississippi State Board of Health; Dr. Nolan Stewart, formerly Superintendent of the Mississippi State Hospital for the Insane at Jackson; Dr. Marcus Hause, Professor of Dermatology, Medical College of the University of Tennessee, Memphis, Tenn.; and Dr. Martin R. Engman, Professor of Dermatology in the Washington Medical School, St. Louis, Mo., declare that the disease which was produced was true pellagra.

"Prior to the commencement of these experiments no history could be found of the occurrence of pellagra on the penitentiary farm. On this farm are seventy-five or eighty convicts. Governor Earl Brewer offered to pardon twelve of the convicts who could volunteer for the experiment. They were assured that they would receive proper care throughout the experiment, and treatment should it be necessary. The diet given was bountiful and more than sufficient to sustain life. It differed from that given the other convict merely in the absence of meats, milk, eggs, beans, peas and similar proteid foods. In every other particular the convicts selected for the experiment were treated exactly as were the remaining convicts. They had the same routine work and discipline, the same periods of recreation and the same water to drink. Their quarters were better than those of the other convicts. The diet given them consisted of biscuits, fried mush, grits and brown gravy, syrup, corn-bread, cabbage, sweet potatoes, rice, collards and coffee, with sugar. All components of the dietary were of the best quality and were properly cooked. As a preliminary, and to determine if the convicts were afflicted with any other disease, they were kept under observation from February 4 to April 9, two and a half months, on which date the one-sided diet was begun.

"Although the occurrence of nervous symptoms and gastro-intestinal disturbances was noted early, it was not until September 12, or about five months after the beginning of the restricted diet, that the skin symptoms so characteristic of pellagra began to develop. These symptoms are considered as typical, every precaution being taken to make sure that they were not caused by any other

disease. The convicts upon whom the experiment was being made, as well as twenty other convicts who were selected as controls, were kept under continuous medical surveillance. No cases of pellagra developed in camp, excepting among those men who were on the restricted diet. The experimenters have, therefore, drawn the conclusion that pellagra has been caused in at least six of the eleven volunteers as a result of the one-sided diet on which they subsisted.

"On the basis of this discovery, the states of Mississippi, Louisiana and Florida have laid their propaganda through their respective boards of health for the eradication of the disease."

We publish this report because it is authoritative, coming as it does from the U. S. Public Health Service, and although we do not fully agree with the conclusions drawn from the experiment, yet it would seem to indicate that it is necessary, in view of the great number of deaths in this State, that a propaganda should be undertaken to educate the people to the necessity of eating a more varied diet, and especially as to what constitutes a balance ration. In other words, that the people must be taught that having plenty of cows on the farm and plenty of chickens and plenty of fresh meat is needful, if they wish to escape pellagra and tuberculosis.

JAMES A. HAYNE, M. D.,
Secretary and State Health Officer.

MINUTES OF EXECUTIVE COMMITTEE MEETINGS

Columbia, S. C., February 9th, 1915.

A special meeting of the Executive Committee of the State Board of Health was held Tuesday, February 9th, at 3 P. M. at the offices of the Secretary, Palmetto Bldg., with the following members present: Drs. Robt. Wilson, (Chairman) D. B. Frontis, C. C. Gambrell, Wm. Eggleston, W. W. Dodson, and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the last meeting were read and approved.

This meeting was called for the purpose of considering special appropriations to be asked for from the General Assembly for the Bureau of Vital Statistics and the Tuberculosis Hospital. A report of the work done at the Tuberculosis Hospital, to date, was read and the committee visited the Tuberculosis Hospital and found the work progressing satisfactorily. The Secretary was authorized to request a liberal appropriation from the General Assembly for the purpose of carrying out the plans for the Tuberculosis Hospital for 1915. A report of the work done in establishing a Bureau of Vital Statistics was read and the doings were satisfactory and approved. The Secretary of the Board of Health was empowered to employ, if the General Assembly appropriated sufficient funds, a chief clerk at \$1,200.00 per annum, a filing clerk at \$600.00 per annum and a stenographer at \$600.00 per annum, and such other help as may be required for carrying on the work of the Bureau.

The rules promulgated by the Board for the Registration of Births and Deaths in South Carolina were approved and amended as follows:

"That all dealers of coffins and caskets be required to keep a record of all sales, of coffins and caskets, made by them and to make a monthly report to the Bureau of Vital Statistics on proper blanks to be furnished them by said Bureau."

Mr. C. C. Jermane of the Bureau of Census appeared before the Board and discussed vital statistics, and complimented the Bureau of Vital Statistics of South Caro-

lina upon its efficient work. Dr. Eggleston moved that the Secretary of the Board be instructed to write to the Bureau of Census and request that Mr. Jermane be allowed to remain with the Bureau of Vital Statistics for three months in order to obtain his advice and assistance. A vote of thanks was tendered Mr. Jermane for his co-operation with the Board.

The election of a Sanitary Physician for Richland County was discussed and it was decided to hold the election soon after the passage of the Bill as possible, and when a full Board would be present. It was also decided to elect a Superintendent for the Tuberculosis Hospital at the next meeting of the Board, and the Secretary was instructed to ask for applications for these positions through the public press.

JAMES A. HAYNE, M. D.,
Secretary.

Attested.

Columbia, S. C., March 12th, 1915.

A special meeting of the Executive Committee of the State Board of Health was held, Friday, March 12th, at 9:30 A. M. at the offices of the Secretary, Palmetto Bldg., with the following members present: Drs. Robt. Wilson, (Chairman) D. B. Frontis, C. C. Gambrell, E. A. Hines, W. J. Burdell, W. M. Lester, W. W. Dodson, (C. W. Sawyer, Comptroller-General) and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the last meeting were read and approved.

Several communications were read by the Secretary.

In reply to a letter from the South Carolina Federation of Women's Clubs, April 10th, 1915, was set aside for Clean-Up Day for South Carolina, and the Secretary was directed to take steps to give publicity to this day, and was authorized to purchase two thousand buttons of a suitable design to advertise the day.

The following regulation was passed under Act 419 and ordered promulgated.

Spitting on the floors or walls of public buildings, or in buildings opened to or frequented by the public is hereby strictly forbidden under the penalties provided by Act 419.

It was moved and seconded that Dr. F. A. Coward be instructed to attend the County and District Association meetings whenever he could do so without interfering with his duties in the laboratory, and that the necessary traveling expenses be paid out of the Contingent Fund.

It was moved and seconded that Dr. Hines, Editor of the Journal of the South Carolina Medical Association, be requested to publish the laboratory reports.

It was moved by Dr. Eggleston that Dr. Coward be authorized to extend the courtesies of the laboratory to the members of the profession in South Carolina for the purpose of instruction.

Dr. Hines moved that the Secretary be instructed to obtain bids, from the various printing establishments in South Carolina, for the printing of bulletins.

A letter from Mr. Jas. Hamilton, City Engineer for the town of Chester, was read, explaining why Chester had not complied with the order of the Executive Committee of the State Board of Health, in regard to sewage disposal, which matter was brought to the attention of this Committee at the October and December (1914) meetings. Complaint from Col. T. J. Cunningham was also read. After considerable discussion the following resolution was introduced by Dr. Burdell and was passed.

RESOLVED; That the City of Chester be given six months to carry out the plans submitted by the City of Chester and approved by the Executive Committee of the State Board of Health.

The Secretary was instructed to insert in the South Carolina Medical Journal, Southern Medical Journal, Journal of the Medical Association, a notice for applicants for position for Medical Superintendent of Tuberculosis Hospital. Salary \$1,500.00 per annum, fuel, lights and board. Matron and nurse \$600.00 per annum, each, fuel lights and board. It was decided that the election would take place at Greenwood, April 20th, at the annual meeting of the Board.

The Act passed by the last General Assembly creating a Sanitary Physician and Health Officer for Richland County was then discussed. Upon motion of Mr. C. W.

Sawyer, Comptroller-General, seconded by Dr. Hines, Mr. J. J. McMahan, member of the legislature from Richland County, was requested to explain this Act. Mr. McMahan appeared before the Board and briefly outlined the desire of the Richland County delegation in regard to this Act. The Board then went into election of a Sanitary Physician and Health Officer for Richland County. There were thirteen applicants. Dr. H. M. Smith was elected by ballot. A committee was then appointed to outline the work and to prepare rules for the guidance of the Sanitary Physician and Health Officer for Richland County.

Committee:

Robt. Wilson, Jr., M. D., Chairman

Jas. A. Hayne, M. D., Secretary

W. M. Lester, M. D.

There being no further business the Board adjourned.

JAMES A. HAYNE, M. D.,
Secretary.

Attested.

Greenwood, S. C., April 20th, 1915.

The annual meeting of the Executive Committee of the State Board of Health was held, Tuesday, April 20th, at 9:30 A. M. at Greenwood, with the following members present: Drs. Robt. Wilson (Chairman) C. C. Gambrell, E. A. Hines, W. J. Burdell, Wm. Egleston, W. M. Lester, W. W. Dodson and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the last meeting were read and approved.

A bill was presented from Dr. R. B. Gantt of Charleston for services rendered in the suppression of smallpox by vaccinations in Charleston County, and Dr. Gambrell moved that the Secretary be instructed to adjust and pay account.

The matter of improper disposal of sewage in the city of Chester was discussed. Mr. T. J. Cunningham and Mr. J. C. McLure representing the city of Chester and Mr. Welborn representing the Wylie Mills and Mr. Robt. Caldwell attorney for the mills were present and presented their cases. The Board decided that they would take the

whole matter up at their next regular meeting so that they could be present.

The next business before the meeting was the election of a Superintendent for the State Tuberculosis Sanatorium. A vote by ballot resulted in the election of Dr. Ernest Cooper, of Columbia, S. C., at a salary of \$125.00 per month, board and lodging. Next was the election of a trained nurse. Miss Kathleen Crawford, of Chester, was duly elected at a salary of \$50.00 per month, board and lodging. Next was the election of a housekeeper. Mrs. N. J. Burt was elected at a salary of \$50.00 per month, board and lodging.

The annual election of officers was the next business, which resulted in the following election: Dr. Robt. Wilson, Jr., Chairman and Dr. Jas. A. Hayne, Secretary and State Health Officer.

There being no further business the Board adjourned.

JAMES A. HAYNE, M. D.,
Secretary.

Attested.

Charleston, S. C., May 28th, 1915.

The Sub-committee of the Executive Committee of the State Board of Health for the Erection and Maintenance of a Tuberculosis Hospital convened at 10:30 A. M., Friday, May 28th, at Charleston Hotel, Charleston, S. C., with the following members present: Drs. Robt. Wilson, Jr., Chairman, Jas. A. Hayne, Secretary, C. C. Gambrell, Wm. Egleston and Ernest Cooper, the newly elected Superintendent.

The Secretary of the State Board of Health presented an itemized statement of the expenditures for the hospital to date, which items were approved by the committee.

The Secretary of the State Board of Health was elected treasurer of the funds of the Tuberculosis Hospital, and the Secretary and Superintendent were empowered to spend such amounts of the appropriation as might be necessary for the proper conduct of the hospital. The Superintendent and Secretary were directed to submit an

itemized statement monthly to the Executive Committee of the State Board of Health of all expenditures.

After some discussion the following name was adopted for sanatorium: The South Carolina Sanatorium (for Tuberculosis).

Dr. Egleston moved that the Superintendent and the State Health Officer formulate rules and regulations for the proper conduct of the hospital and submit same to the Executive Committee of the State Board of Health.

The following rules were adopted as to admission:

First: That only ambulant white male patients be received, preference being given to incipient cases.

Second: That two may be admitted from each Congressional District, provided they are applicants from district. If there is not an applicant, may be taken from some other district to fill the vacancy.

Third: That the three free beds provided by the State be filled in rotation from the seven Congressional Districts.

Fourth: That applicants for the free beds must submit an affidavit showing their inability to pay.

There being no further business the Board adjourned.

JAMES A. HAYNE, M. D.,
Secretary.

Columbia, S. C., July 16th, 1915.

The regular quarterly meeting of the Executive Committee of the State Board of Health was held, Friday, July 16th, at 9 A. M. at the offices of the Secretary, Palmetto Bldg., with the following members present: Drs. Robt. Wilson, Jr. (Chairman) D. B. Frontis, C. C. Gambrell, E. A. Hines, W. J. Burdell, Wm. Egleston, W. M. Lester and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the annual meeting, held in Greenwood, and minutes of the meeting of the Sub-committee of the Executive Committee of the State Board of Health for the Erection and Maintenance of a Tuberculosis Hospital, held in Charleston, were read and approved.

The first business before the Board was the discussion of the disposal of sewage of the city of Chester, Col. T. J. Cunningham being the complainant. The following gentlemen appeared before the Board: Mr. J. C. McLure, Attorney for the City of Chester; Mr. A. G. Brice, Attorney, and Mr. Zimmerman, Sanitary Engineer, represented the Wylie Mills; Mr. H. G. Welborn, of Columbia, appeared for Mr. W. E. Beattie, Treasurer of the Parker Mills. After a full hearing from these gentlemen and a thorough discussion, the following resolution was introduced by Dr. Burdell, seconded by Dr. Egleston and passed by the Board; and that a copy of this action be sent to those interested.

RESOLVED: That after a rehearing of the matter of the Chester city sewerage, that the Board is convinced that this sewage is a menace to the public health, and that the condition must be remedied within the time already specified in resolution of the Board at meeting of March 12th, 1915, viz: before September 12th, 1915.

A comprehensive report, by Mr. C. W. Miller, of the work done by the Vital Statistics department was read. Upon motion of Dr. Gambrell the following resolution was passed:

RESOLVED. That the Board commend Mr C. W. Miller, Chief Clerk, and the other employees of the Vital Statistics Department for the efficient work done by them for the past six months, and that a copy of this resolution be sent to them.

SEMI-ANNUAL REPORT OF THE DEPARTMENT OF VITAL STATISTICS.

This department of the State Board of Health commenced operations January the first, 1915. After five months work, I think results have been gratifying, our work comparing more than favorably with that of Alabama and Louisiana, whose reports I have, and who have had a Vital Statistics Law for several years.

In January the death registration showed a rate of 13, and a birth rate of 22.5. Since then both have improved. For April and May, the death rate has been 16, and the birth rate for April 28.8, May 29.8. I look for a rate for June equally as good, if not better.

Although this office sent out supplies and a copy of the law to every physician whose name is on the State Board of Health's list, still, only today, I received a letter from one of our Registrars, stating that a certain physician in his district had only recently become aware of the existence of this law.

The greatest difficulty I have to contend with is the antagonism of a few physicians and the indifference of many towards the Law. Some are unwilling to give the little time required for making out a death certificate, and others have adopted the Manana custom of the Cubans.

In writing to the physicians in regard to their negligence and indifference I use a pleasant tone, trying to impress upon them the importance of making prompt returns, asking their co-operation, trying to show them the benefit to the State and future generations of a good, efficient Registration of births and deaths.

Reports from the Registrars show that the negroes take a great interest in the law, and but for the fact that so many die without medical attention and the correct causes of death are not always given, this office would have no cause for complaint.

The Registrars throughout the State have entered into the work with zest, and often at a personal sacrifice, hunt out obscure cases and send reports to this office.

The Undertakers give us efficient help, and have co-operated in a very gratifying manner.

The Mid-wives, many of whom are uneducated, do fairly well in reporting births.

In December of last year over fourteen hundred packages of supplies were sent out to physicians, three hundred to undertakers, over two hundred to mid-wives, and five hundred to Registrars. Since January over one thousand packages of supplies have been sent out, and over two thousand letters written.

Indexing the books of births and deaths have been kept up to date. A list of deaths from communicable diseases compiled by months, and for the month of May, deaths by ages, color, and sex tabulated. As soon as I get the time, I will for the months previous make up this record.

The office force consists of myself, Chief Clerk; Mrs. Remley, File Clerk; Miss Washington, Stenographer; Miss Lotty Washington, Index Clerk; and Mr. A. S. Williams, who for four hours a day assists in the office. I want to mention the valuable assistance rendered this office by Mr. Clifton C. Jermane, who was sent by the Census Bureau in Washington to aid us in inaugurating the work of this department.

Before closing I wish to express my appreciation of the efficient help rendered to me by the ladies of the office and by Mr. Williams.

Respectfully,

C. WILSON MILLER,

Chief Clerk.

The next business before the Board was a question of supplying the Registrars of Vital Statistics in South Carolina with badges designating their office. Dr. Egles-ton moved that the badges be supplied; provided the funds were sufficient. A bid for these badges was submitted by Mr. A. T. Langley at the following prices: 800 for 14 cents each—1000 for 13 cents each.

The Secretary of the State Board of Health called attention to the fact that Regulation 2 of the Regulations for the Vital Statistics department should be changed as

it was not always to the best interest of the department to appoint the Secretary of the Local Board of Health as Local Registrar and the follownig changes were made under the head of Regulation 2. "That in cities and towns, the Secretary of the State Board of Health as State Registrar of Vital Statistics, shall appoint the Local Registrar of Vital Statistics, and shall appoint in each township one or more Local Registrars of Vital Statistics for that portion of the township which the State Registrar shall designate."

Dr. F. A. Coward appeared before the Board and read report of the work of the Laboratory for the past six months, showing a decided increase in the amount of work done over the corresponding six months of 1914.

SUMMARY OF LABORATORY WORK FROM JANU- ARY 1, 1915, TO JUNE 30, 1915.

Kind of Specimen		Posi- tive	Neg- ative	Doubt- ful	Total
Widal Test	B. typhosus	283	485	39	....
	B. paratyphoid	53	754	....	1614
Sputa for T. B.		120	367	....	487
Hookworm ova		54	241	....	295
Rabies		64	35	7	106
Gonococcus		6	10	1	17
B. Diphtheria		15	77	....	92
B. Coli in Water		37	34	....	71
Plasmodium Malaria		9	102	1	112
B. Tuberculosis in discharges other than Sputa			5	....	5
Miscellaneous pathogenic organisms					
Pyogenic cocci		4	....	....	4
Meningococcus .....		....	1	....	1
Miscellaneous intestinal parasites other than Hookworm					
Ameba Hystolitica		1	13	....	14
Tenia Nana		1	....	....	1
Total					2819

No. of Ampules sent out between Jan. 1, 1915 and
June 30th, 1915 13,987

PASTEUR DEPARTMENT

No patients treated since Jan. 1st.	154
No. patients being treated at present time	23

F. A. COWARD, M. D.,

Director.

Dr. Coward stated that he had attended, as directed by the Board, many meetings of the various County Medical Societies, and believed that his personal contact with the members of the profession has done much to increase the confidence in the Laboratory by the profession. He stated that there seemed to be a general demand for the doing of the Wasserman test by the Laboratory, and was instructed by the Board to find out if it was feasible to do this work in our Laboratory.

Dr. Coward was authorized to employ Dr. L. A. Rizer for three months, at a salary of One Hundred Dollars per month, as an assistant in the Laboratory.

Dr. J. LaBruce Ward appeared before the Board in regard to a County Unit to be employed by the State Board of Health in conjunction with The Rockefeller Foundation, it being agreed by the Rockefeller Foundation that they would pay half if the State Board of Health would pay half for nine months service of a unit, this unit to consist of one Director of Rural Sanitation at a salary of \$150.00 per month and \$75.00 per month for traveling expenses. Three inspectors at \$50.00 per month. \$25.00 a quarter for a contingent fund. Dr. Ward stated that he had consulted Governor Manning who was heartily in favor of this unit and authorized the expenditure of this money.

It was moved and seconded that the Secretary be directed to expend from the Contingent Fund the sum of \$1800.00 for this purpose.

Dr. J. T. Howell was elected to fill the office of Director of Rural Sanitation.

Dr. H. M. Smith, Health Officer for the County of Richland, appeared before the Board and submitted a bulletin on the proper disposal of sewage, and the Secretary was instructed to read the bulletin and if he approved same to have one thousand copies printed for distribution.

Dr. J. W. Babcock appeared before the Board and made the request that the State Board of Health invite the National Association for the Study of Pellagra to hold its triennial convention in South Carolina. Dr. Gambrell moved that the State Board of Health comply with Dr. Babcock's request and that a committee consisting of the Chairman, the State Health Officer and one member of the Board constitute a committee to make arrangements for this meeting. Dr. Gambrell was appointed, by the Chairman, as a member.

A letter was read from Mr. C. E. Lafaye, Architect, in regard to a septic tank to be placed at State Park. The plans for this tank were inspected by the Board and approved upon motion by Dr. Lester.

It was moved by Dr. Egleston, duly seconded and passed, that the Superintendent of the State Hospital for the Insane be requested to allow suitable inmates to assist in helping to improve the grounds of the South Carolina State Sanatorium for Tuberculosis.

The Board then took a recess to visit the South Carolina State Sanatorium at State Park and made a thorough inspection of the buildings there and approved the bills, for the month of June, submitted to them. They found the buildings in good order, the food well cooked and plentiful, and suitable for patients. There were six patients—three pay patients and three occupying the three free beds provided by the Act of the General Assembly.

There being no further business the Board adjourned to meet at the call of the Chairman.

JAMES A. HAYNE, M. D.,
Secretary.

Attested.

Columbia, S. C., Oct. 21-22, 1915.

The regular quarterly meeting of the Executive Committee of the State Board of Health was held, Thursday and Friday, October 21-22, at 9:30 A. M., at the offices of the Secretary, Palmetto Bldg., with the following members present: Drs. Robt. Wilson, Jr. (Chm.) D. B.

Frontis, C. C. Gambrell, E. A. Hines, W. J. Burdell, Wm. Egleston, W. W. Dodson and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the last meeting were read and approved.

The Secretary brought to the attention of the Board the fact that the Secretary of the Board of Health of Manning, S. C., had been called upon to submit plans of the sewage disposal of that city to the State Board of Health, and had failed to do so. As this sewage may contaminate the waters of Black River, which water is used by the city of Georgetown, the Secretary was instructed to write to the Mayor of Manning and to the Secretary of the Board of Health, requesting this information at once, and should the Board of Health of Manning refuse to submit this information, that they be notified to show cause why they should not be removed for non-compliance with orders coming from the State Board of Health.

A letter from Dr. Elias D. Tupper, of Summerville, containing an order from the Board of Health of Summerville in regard to typhoid fever was read, and the State Health Officer was instructed to write to the Board of Health of Summerville, calling their attention to the fact that all rules or laws of the Board of Health must be submitted to the State Board of Health for approval before adoption, and that the State Board of Health did not approve of their resolution of October 4, 1915, in regard to typhoid fever.

A petition was presented from G. F. Hiers and others of Ehrhardt in regard to a millpond known as the Ritters Old Millpond, complaining that this pond was causing sickness. The Board directed the State Health Officer to inspect this pond and take such action as he deemed necessary to protect the health of the people.

The next matter brought to the attention of the Board was in regard to making the Wasserman test, at the Laboratory of the State Board of Health, for physicians. Letters were read from numerous citizens of Columbia, asking that the State Board of Health do not do this work, principally on the ground that it would interfere with private laboratory.

Mr. J. Boyden Nims appeared before the Board, and stated his reasons for objecting to the State Board of Health Laboratory making the Wasserman test.

The Board decided that in view of the fact that funds for the carrying out of this work were not available at the present time, that they should endeavor to obtain from the legislature a sufficient fund to do this work, and in view of the fact of the many erroneous statements in the letters received in regard to this matter, that through fear that the public may be misinformed by interested parties in regard to this matter, that a committee of five be appointed by the Chairman, to include the Chairman and State Health Officer, to draft a letter of reply, which letter should be published in the daily papers, giving the reasons for such publication. The committee appointed was as follows: Drs. Robt. Wilson, Jr. (Chm.) C. C. Gambrell, W. J. Burdell, W. M. Lester and Jas. A. Hayne, Secretary and State Health Officer.

It was moved by Dr. Hines that a leaflet on Care of the Baby be prepared and sent to the mothers of Anderson and Kershaw Counties, as birth certificates were received at the Bureau of Vital Statistics.

Dr. Eggleston presented a request to institute a campaign for the free administration of typhoid bacterin in the school district of Hartsville, S. C. and the Board of Health agreed to furnish the typhoid bacterin—the expenses of the distribution, however, to be paid by the school district, and proper records be kept and sent to the Columbia office.

An ordinance to prohibit the use of the common drinking cup and common, or roller, towel in any public place, school or church, etc., was sent by the Board of Health of Greenville for approval by the State Board of Health. This proposed ordinance was approved, and the Secretary was instructed to notify the Secretary of the Board of Health of Greenville.

A letter was read from Willcox & Willcox in regard to an alleged nuisance existing on the property of the Standard Oil Co. in Charleston, S. C., said nuisance being occasioned by the Charleston abattoir, its sewer emp-

tying upon this property and causing offensive odors, etc.

The Board moved that this matter be investigated, and if proved to be a nuisance, that it be ordered abated.

Dr. H. M. Smith, Health Officer Richland County, was authorized to prepare and have printed, at the expense of the State Board of Health, a bulletin of the subjects of the Eye, Ear, Tonsils, Adenoids and Teeth, and the Secretary was authorized to have printed another edition of the bulletin on The Safe Disposal of Human Excreta.

The next matter before the Board was the hearing in regard to the Gibbons & Lavender Millpond. The owners of the pond were represented by Davis & Wideman, attorneys for W. E. Lavender, J. W. Gibbons and the estate of T. J. Gibbons. Numerous citizens from that section were present and their testimony taken. It was moved and seconded, that in view of the conflicting testimony, that action by the Board be postponed until the next meeting, and that the State Health Officer obtain sufficient data in the meantime so that the Board may act intelligently.

The Board then took a recess until 9:30 A. M., October 22, to attend the sessions of the Pellagra Conference held under the auspices of the Board.

Columbia, S. C., October 22, 1915.

The Board reconvened and the matter of the specifications for the contract of furnishing free Diphtheria Antitoxin was taken up. The Secretary was instructed to prepare specifications and submit them to all firms manufacturing Diphtheria Antitoxin, and that the contract be awarded upon bids submitted at the next regular meeting of the Board in December; the Board reserving the right to reject any and all bids submitted.

The financial statements presented by the Secretary were gone over, and the Board ordered that strict economy be practised in all Departments of Health, and that every effort be made to not exceed the appropriation for the Contingent Fund.

There being no further business the Board adjourned to meet at the call of the Chairman.

JAMES A. HAYNE, M. D.,
Secretary.

Attested.

Columbia, S. C., Dec. 3, 1915.

The Sub-committee of the Executive Committee of the State Board of Health for the Erection and Maintenance of a Tuberculosis Hospital convened at 9 A. M. Friday, December 3, at the offices of the State Board of Health, with the following members present: Drs. Robt. Wilson, Jr., Chairman, Jas. A. Hayne, Secretary, C. C. Gambrell, Wm. Egleston, and Ernest Cooper, Supt.

The bills were audited by this committee, and found correct. The committee made a thorough inspection of the plant. The plant was in excellent condition, the stock healthy and everything in a very sanitary condition. The water supply adequate and of good quality; the food abundant and well cooked, and properly served; the help efficient.

Dr. Ernest Cooper, Supt. was advised to put himself in touch with as many agencies as possible, in order that the South Carolina Sanatorium might be more efficiently advertised.

It was recommended by this committee that in the Annual Report to the Legislature that the following improvements be recommended to be made to the plant. First: a ward for female patients. Second: a dining room and kitchen sufficient to take care of the increased number of patients, and also a male ward, similar to the one now occupied, be built. Third: an incinerator. It was also recommended that the Superintendent purchase a Ford automobile, for the transportation of patients and supplies, if funds permitted.

There being no further business the committee adjourned.

JAMES A. HAYNE, M. D.,
Secretary.

Columbia, S. C., Dec. 18, 1915.

The regular quarterly meeting of the Executive Committee of the State Board of Health was held, Saturday, December 18, at 10 A. M. at the offices of the Secretary, Palmetto Bldg., with the following members present: Drs. Robt. Wilson, Jr., Chairman, D. B. Frontis, C. C. Gambrell, E. A. Hines, W. J. Burdell, Wm. Egleston, W. M. Lester, W. W. Dodson, and Jas. A. Hayne, Secretary and State Health Officer.

Minutes of the last meeting were read and approved.

Upon presentation of a letter from L. T. Christian, in regard to the adopting by the Executive Committee of the State Board of Health, a standard form of transit permit for transportation of corpses was adopted, and it was agreed that the present form should be used and the new form gradually adopted as the old blanks were used up; this form to be finally adopted March 1, 1916.

An ordinance to prohibit the use of the common drinking cup in public places was sent by the Board of Health of Greenville for approval. This ordinance was approved by the Executive Committee of the State Board of Health and the Secretary was instructed to notify the Secretary of the Board of Health of Greenville.

This being the final quarterly meeting for the year, reports of Standing Committees was the next order of business. The first Committee to report was the Committee on Epidemic and Contagious Diseases, Jas. A. Hayne, M. D., Chairman. Then the report of Committee on Sanitary Inspection of State Penal and Charitable Institutions, C. C. Gambrell, M. D., Chairman. Also the report of Committee on Sanitary Inspection of State Schools and Colleges, E. A. Hines, M. D., Chairman.

The report of the Laboratory work was read by F. A. Coward, M. D., Director.

The report of the Bureau of Vital Statistics was read by Mr. C. W. Miller, Chief Clerk.

The report of the South Carolina Sanatorium was read by Ernest Cooper, M. D., Supt.

The report of the work being done in Richland County, was read by H. M. Smith, M. D., County Health Officer.

Dr. J. LaBruce Ward, Director of Rural Sanitation, made a verbal report.

These reports were received as information, and ordered printed in the Annual Report to the Legislature.

A resolution was passed congratulating Dr. F. A. Coward, Director of the Laboratory, on the efficient work of the Laboratory during the year.

A resolution commending Mr. C. W. Miller, Chief Clerk, for his excellent work for the Bureau of Vital Statistics was passed, and the Secretary was directed to notify him of said resolution.

The Executive Committee of the State Board of Health expressed their appreciation of the work done by Miss J. P. Tompkins, and recommended that her salary be raised to \$1,000.00, she doing the entire book-keeping and clerical work of the Executive Department.

The following resolution was introduced by Dr. Wm. Eggleston, and seconded by Dr. D. B. Frontis:

RESOLVED: That this work, i. e., the Wasserman test be done without any specific request for an appropriation for the purpose, but in routine work of the laboratory, so far as funds permit it.

The next business was the opening of the bids for the furnishing of free diphtheria antitoxin for the coming year. Only two companies submitted bids, viz: H. M. Alexander & Company of Marietta, Pa., and H. K. Mulford Company of Philadelphia, Pa.

The following bids was submitted by H. M. Alexander & Company, which was accepted:

1,000 Units in Syringe Package	\$.45
3,000 " " " " "	1.25
5,000 " " " " "	1.90
10,000 " " " " "	3.20

A bond of \$1,000.00 was tendered the executive Committee of the State Board of Health as a guarantee of faithful performance of contract. The contract is as follows:

SPECIFICATIONS FOR PROPOSALS ON DIPHTHERIA ANTITOXIN.

1. Sealed proposals for supplying a concentrated and refined Diphtheria Antitoxin (Gibson method or a satisfactory modification thereof) will be received by the Executive Committee of the South Carolina State Board of Health, on December 18, 1915, at 10 A. M., at the office, Room 512, Fifth Floor, Palmetto Bank Bldg., Columbia, S. C.

2. Proposals must be typewritten, signed by a duly authorized representative of the firm making the proposal, and accompanied by a bond of \$1,000.00 to secure the faithful fulfillment of the contract in case it should be awarded.

3. Antitoxin is to be furnished in sterile syringes and in doses of 1,000, 3,000 and 5,000 units. Sample packages covering these doses, in syringes to be supplied, must be submitted with bid.

4. Each syringe shall be furnished in a separate wooden box, carefully packed so as to prevent breakage, in a manner acceptable to this Board.

5. Each package shall be wrapped in a special wrapper, bearing the name of the South Carolina State Board of Health, the directions for use; also the name and address of the manufacturer. The printing on wrapper must meet with the approval of this Board; in fact, not only the wrapper but the entire package must meet with the approval of this Board, and must also meet in every way the requirements of the United States Public Health and Marine Hospital Service, as exercised by them over general interstate business in Antitoxin.

6. The contractor will be required to place and keep in stock at all times, in all towns of 500 (of which there are probably about 100) or over, and at all such other places as the Board may direct, such quantities of Diphtheria Antitoxin as may be deemed necessary.

7. The contractor will also exchange for fresh stock such Antitoxin as may have lost its indicated strength. The contractor will also be required to furnish such blanks and printed matter as may be desired by the

Board in distributing the Antitoxin, and it will be his duty to see to it that fresh Antitoxin is at all times kept in the hands of the distributor, and that it is properly distributed by him.

8. The contractor shall pay the distributors a compensation of at least 10% for their services, and this compensation to be paid them every thirty days, in accordance with the number of requisitions returned to them.

9. The contractor will be required to keep an accurate record of the stock sent to each distributing station, and that such stock be exchanged, free of charge when it becomes outdated, without notification from the distributor, and further that expenses for transportation charges be sent to the distributor for the return of old stock.

10. The contractor shall maintain a record of all this stock at Columbia. Such record to be open to inspection by your office.

11. The contractor shall furnish the Secretary of the State Board of Health, at his request, a statement of the exact amount of stock any Distributing Station has on hand, which can be told by the stock shipped them less the requisitions returned.

12. The contractor will be required to supply the Distributing Stations with requisition blanks, in triplicate, bound in book form.

13. The contractor will be required to recall his stock from the Distributing Stations at the termination of the contract, provided he is not the next successful bidder.

14. That each Distributing Station carry a stock of not less than,

6 Packages of 1,000 Units.

6 " " 3,000 "

6 " " 5,000 "

15. The contractor will be required to guarantee a potency of not less than,

500 Units per co. for a 1,000 Unit Package.

900 " " " " " 3,000 " "

1600 " " " " " 5,000 " "

16. The Board will pay at the end of each month for all Antitoxin used during the preceding month.

17. The Board will consider proposals of any character, regardless of the suggestions contained herein.

18. The Board reserves the right to reject any or all proposals, or to accept the highest or lowest bid, as it elects.

19. Proposals should be enclosed in an envelope marked "Proposals for Diphtheria Antitoxin" and be sent by special delivery mail, or delivered in person to the undersigned, at Columbia, S. C., on or before December 18, 1915.

JAS. A. HAYNE, M. D.,
Secretary and State Health Officer.

The next business was the hearing in regard to the Gibbons & Lavender millpond. The plaintiffs in this case were represented by John H. Clifton, Atty., and the defendants by Davis & Wideman, Attys. After a thorough hearing of all witnesses, it was decided to require the State Health Officer to visit these localities and take with him a competent engineer who shall determine by survey certain disputed points in regard to the pond.

The State Health Officer was authorized to write to the Surgeon-General, U. S. Public Health Service, and request the detail of an officer from that service to make a sanitary survey of one of the counties of South Carolina.

There being no further business the Board adjourned.

JAS. A. HAYNE, M. D.,
Secretary.

CONCISE REPORT OF WORK OF STATE HEALTH OFFICER.

I submit a concise report of the work of the State Health Officer, giving the dates of his trips and the cause of such trips.

January 11.—Trip to Gadsden and vicinity.—Investigation of smallpox.

January 19.—Trip to Batesburg.—Lecture to the Eighth District Medical Association.

January 25.—Trip to Gadsden and vicinity.—Investigation of smallpox.

January 31.—Trip to Yorkville.—Investigation of nuisance complained of.

February 1.—Trip to Yorkville.—Investigation of nuisance complained of.

February 22-25.—Trip to Edgefield County.—Investigation of conditions resulting from the impounded waters of Stevens Creek.

March 4-6.—Trip to Yorkville.—Inspection of sanitary conditions.

March 14-15.—Trip to Greenville.—Consulting with Health Commissioner.

March 19.—Trip to Ridge Spring.—Lecture at School House.

March 24.—Trip to Columbia.—Lecture at Sidney Park church.

March 25.—Trip to Camden.—To attend Kershaw County Medical Society meeting.

March 30.—Trip to Dillon.—To attend Dillon County Medical Society meeting.

April 10.—Trip to Florence.—Lecture to Civic League.

April 11.—Trip to Charleston.—Investigation of smallpox.

April 13.—Trip to Summerville.—Investigation of sanitary conditions.

April 16.—Trip to Anderson.—Lecture to mass meeting.

April 17.—Trip to Greenville.—Investigation of sanitary conditions.

April 18.—Trip to Greenwood.—Lecture on Sanitation.
 April 19-23.—Trip to Greenwood.—Annual meeting of Executive Committee of State Board of Health.

May 8-10.—Trip to Charleston.—Inspection of city water works.

May 12-15.—Trip to Washington.—Conference of Surgeon General, U. S. P. H. S., with State and Territorial Board of Health.

May 17-19.—Trip to Atlanta.—Conference with International Health Commission.

May 24-27.—Trip to Asheville.—To attend meeting of Southeastern Sanitary Association.

May 27-29.—Trip to Charleston.—To attend meeting of Sub-Committee of Executive Committee of State Board of Health.

June 10-11.—Trip to Charleston.—Consultation with Dr. F. L. Parker, State Chemist.

June 17-July 9.—Trip to San Francisco.—To attend meeting of American Medical Association.

July 29-30.—Trip to Greenville.—Consultation with Health Commissioner.

August 11-13.—Trip to Parr Shoals.—Investigation of malarial conditions.

August 17-19.—Trip to Yorkville.—Investigation of malarial conditions.

September 1-3.—Trip to Clinton.—To attend meeting of District Medical Association.

Sept. 4-15.—Trip to Rochester.—To attend meeting of American Public Health Association.

September 22.—Trip to Florence.—Inspection of Community work.

September 24-25.—Trip to Spartanburg.—Inspection of Pellagra Hospital.

September 30.—Trip to Abbeville.—To attend meeting of Abbeville County Medical Association.

October 4-6.—Trip to Winnsboro.—To testify in suit against Parr Shoals Co., in regard to malarial incidence.

October 11.—Trip to Hartsville.—Investigation of typhoid fever.

October 12.—Trip to Greenwood.—Inspection and approval of site for city abattoir.

October 14.—Trip to Selog.—Inspection of Gibbons & Lavender millpond.

November 1.—Trip to Eastover.—Inspection of sanitary conditions.

November 2-3.—Trip to Greenville.—Lecture at County Tuberculosis Sanatorium.

November 6-15.—Trip to Dallas.—To attend meeting of Southern Medical Association.

November 17-18.—Trip to Gaffney.—Lecture to the Fifth District Medical Association.

November 19.—Trip to Newberry.—To testify in suit against Parr Shoals Co., in regard to malarial incidence.

November 24.—Trip to Lexington.—To testify in suit against Parr Shoals Co., in regard to malarial incidence.

November 29-30.—Trip to Hartsville.—Lecture at Coker College.

December 2.—Trip to Darlington.—Lecture to Mother's Club.

December 14-18.—Trip to Charleston.—To attend Southern Commercial Congress.

JAMES A. HAYNE, M. D.

Secretary and State Health Officer.

REPORT OF COMMITTEE ON SANITARY INSPECTION OF STATE SCHOOLS AND COLLEGES.

WINTHROP COLLEGE,

Rock Hill, S. C.

*To the Chairman of the Executive Committee,
of the State Board of Health:*

Your committee visited Winthrop College November 30, 1915. A notable improvement since our last visit is the gymnasium. This building when completed and equipped will cost about \$75,000. The arrangement for shower baths and swimming pool will be highly conducive to the health of the student body. Probably no gymnasium in the South will be so well suited for the purpose for which it is designed.

There was ample evidence of an increased interest in out door athletics, in connection with the building of the new gymnasium. Plans have been matured for a modern athletic field. This spirit, combined with the teaching in the new gymnasium, should prove beneficial from a health standpoint.

During this summer the entire plumbing of the college was repaired. The cleanliness of the dormitory, and building, generally, was commendable. The committee investigated the food supply and found it satisfactory. The infirmary serves its purpose admirably. There has been only a limited number of cases of illness this term, no contagious, or infectious diseases. The greatest need is a new and modern cow barn. The present structure cannot be made sanitary, and therefore, the milk supply is in danger of contamination. The next possible substitute would be a separate building in which the milking could be done.

CLEMSON COLLEGE.

Clemson College, S. C.

Clemson College was visited December 1, 1915.

Like Winthrop College the authorities were to be congratulated on a new building which will affect favorably

the health of the cadets. This building is the Young Men's Christian Association. Two-thirds of the money was contributed by Mr. John D. Rockefeller. The committee noted provisions for baths and physical exercise. Near the building extensive improvements in the athletic and drill grounds are being made.

It is necessary to call attention again, to the danger from the supplementary water supply which has been more frequently drawn upon in recent years than formerly. The committee advised that a bacteriological examination be made a routine procedure to insure protection from contamination.

The health of the cadet corps has been exceptionally good this term. We were glad to note a new departure in the medical inspection of the freshmen. There has always been a certain form of physical examination of the new men, but it is now contemplated to make this examination much more thorough, in order that the cadet and his family may be appraised of any defect which should be guarded against or corrected. This is a very important matter in as much as not a few students enter upon a college career with physical handicaps of which they are ignorant, and which may prove serious, or even endanger their lives. The time to prevent this calamity is at the beginning of the student's college experience.

There is urgent need for a new hospital, as we have noted before in previous reports. The financial depression of 1914 thwarted the plans for this building, some of the material having already been placed on the grounds. The authorities are to be commended for the careful oversight of the sanitation of the institution.

Respectfully submitted,

E. A. HINES, M. D.

D. B. FRONTIS, M. D.

REPORT OF COMMITTEE ON SANITARY INSPECTION OF STATE PENAL AND CHARITIES INSTITUTIONS.

STATE HOSPITAL FOR THE INSANE,

Columbia, S. C.

December, 1915.

Your Committee has inspected the State Hospital several times during the year and it is pleased to report extensive improvements in many ways. One of the most notable improvements is the manner in which the Medical Department is conducted. All the members of the Medical Staff are now resident officers and devote their entire time to the work.

Daily Staff Meetings, except Sundays, are held and all patients received are carefully examined, both physically and mentally. The information obtained is typewritten, bound in neat form and will prove of great value to the Hospital as permanent records.

Among the permanent improvements which have been undertaken—some of which are now nearing completion, are the remodeling of seven of the White Male Wards, the erection of a Central Kitchen with new equipment, the building of a Congregate Dining Room for white female patients, a new Dairy and the installation of a Cold Storage and Ice Plant. As these matters have been more or less fully covered by the Report of the Board of Charities and Corrections, a copy of which is now in your hands, a further detailed report is deemed unnecessary. However, your Committee desires to express its gratification at the improvements found which meet the modern idea of sanitation in every respect.

We find that many temporary improvements have been made which add materially to the care and comfort of the patients. Shower baths for both white and colored male patients have been installed in their departments, insuring better sanitary bathing facilities. Many of the toilets and bath rooms have been repainted and the plumbing put in better condition. All the Wards through-

out the entire Hospital have been cleansed and present a neater appearance, also the Male Congregate Dining Room. The Basement rooms, which formerly housed many of the colored male patients, have been abandoned. These patients are now cared for at the Laundry building at State Park.

All open cases of Tuberculosis in the various departments have been isolated and are being cared for on open air porches adjacent to the Wards. This arrangement, while an improvement, is not, in the opinion of your Committee, sufficient to meet the needs of this class of patients, they should be cared for in pavilions specially constructed for them.

We are informed by the Superintendent that the number of admissions from Pellagra at the Hospital continues to increase, and that the death rate from this disease is unusually high—about sixty per cent. of all causes of death during the year being attributed to Pellagra. One familiar with this problem at the Hospital is not surprised at the high death rate, and if relief is to be afforded this class of patients, a suitable hospital must be provided for their care and treatment before they reach the condition in which they arrive at the Hospital.

Your Committee would, therefore, again urge as a wise policy for the State a hospital for the early treatment of indigent Pellagra patients.

Respectfully submitted,

C. C. GAMBRELL, M. D., Chairman.

W. M. LESTER, M. D.

STATE REFORMATORY,

Florence, S. C.

December 28th, 1915.

I have this day inspected the Reformatory at Florence. There is some improvement over conditions found last year, but the increase in the number admitted has made very pressing certain suggested improvements. I would make the following recommendations:

1st. That the food furnished the boys be more varied. It is at present not a well balanced diet and is badly de-

ficient in proteids. There ought to be supplied at least three times a week good meat. Then there should be added to this milk and eggs to the most liberal extent possible. At present there is no money with which to supply meat, eggs and milk, but appropriation should be made for this purpose, and meat freshly butchered, should at all events be supplied two or three times a week.

2nd. That a larger and better arranged dining room be provided. That its floors be made of wood instead of the present cement, and that it be better heated and lighted.

3rd. That absolutely new kitchen arrangements be provided and the present insanitary ones be done away with.

4th. That a model barn and dairy be constructed, and better facilities be provided for handling dairy products.

5th. That the walls of all the buildings and the ceilings also be repaired and smooth finished plastered as being more sanitary and more easily kept sanitary. That the floors in the dining room and in the school rooms be covered with wood or some other substance than cement as at present.

6th. That the entire toilet arrangements including lavatories, closets and showers be overhauled and improved. But especially that the closets be changed into some reliable automatic fool-proof type. They are at present, unclean insanitary and a menace to health.

7th. That the plans outlined for new dormitories, new kitchen and new dining room to be put into immediate effect, as tending to relieve the excessive crowding existing there, and its natural tendency to cause sickness.

8th. That additional school rooms be provided to relieve the present overcrowded ones.

9th. That some limit definitely adhered to be placed on the number to be admitted into this institution. It is badly overcrowded and uncared for.

10th. That the superintendent's plan for isolating the feeble-minded among the inmates into a colony on a newly acquired property be furthered as soon as possible and encouraged.

Respectfully submitted,

W. EGLESTON.

REPORT OF DIRECTOR OF LABORATORY.

F. A. COWARD, M. D.

To the Chairman and Members of the Executive Committee, South Carolina State Board of Health:

Gentlemen:-

I submit herewith my report as Director of your Laboratory for the period beginning January 1st, 1915, and ending December 31st, 1915.

PERSONAL WORK.

The laboratory force during the year has consisted of the Director and Assistant, Mr. J. R. Cain, who has been with us since June, 1911.

Mr. Cain has entire charge of the diagnostic work, to which he has given that usual careful and conscientious attention which has made his services so valuable in the past. The gross amount of his work has increased materially during the year and the necessity for an additional assistant, repeatedly requested in the past, was never more evident than now.

The work of the Director has been chiefly in connection with the Pasteur treatment and preparation of the vaccine. At the March meeting of your board, the Director was instructed to attend the meetings of the county medical societies, whenever practicable, for the purpose of discussing the needs and work of the laboratory and its relation to the practicing physicians of the State. It is the opinion of the Director that much good has already come from this plan. It has not been possible to visit all counties so far during the year, besides, some counties are without organized medical bodies. In these latter counties it is not unlikely that a visit from the Director of the Laboratory might be of assistance in stirring up interest and thus lead to the organization of county societies where none exists.

Meetings of the following county societies have been attended: Kershaw, Dillon, Williamsburg, Orangeburg, Oconee, Bamberg, Darlington, Anderson, Marlboro, Laur-

ens and Lexington. Also meetings of the Fifth District Medical Association, at Chester and at Gaffney. The Director also attended meetings of our State Medical Association at Greenwood, meeting of the Southeastern Sanitation Association, of the American Public Health Association, and of the Southern Medical Association. A lecture was delivered at Coker College, at Hartsville, and epidemiological investigations were conducted at Abbeville and at Hartsville.

The necessity for an additional assistant in the laboratory is well illustrated by the trips to Hartsville and Abbeville. In the former it was attempted to determine the source of several cases of typhoid fever. At Abbeville an apparently new disease was reported to be epidemic in the district of Abbeville. In neither of these cases was it possible for the Director to remain on the ground long enough to conduct a thorough and scientific investigation, although some valuable information was obtained by a twenty-four hour visit.

The additional assistant in the laboratory would be a trained investigator, who would have ready at all times a portable emergency outfit and would be always prepared to spend as much time as necessary at the scene of the trouble, and would remain until his work could be completed. This would bring our laboratory close to the rural people and would give modern laboratory facilities to those who are most in need of them at present, and give a just return for their tax money to the rural people.

PHYSICAL CONDITION OF THE LABORATORY.

The rapid deterioration of the building in which our laboratory is situated finally produced such a disgraceful condition of affairs that it became necessary to proceed independently in the work of repair. New and permanent floors were put down in place of what had become an ordinary dirt floor. New ceilings of permanent character were put in where necessary. Two additional rooms were partitioned off in an effort to make dust-proof rooms for the preparation of vaccines. Much of this latter work was rendered of no avail by the constant presence in the laboratory during the summer (which is our busiest time)

of workmen engaged in installing the new heating plant. This, however, is a thing of the past and the laboratory is now in better condition than when first occupied. No work of this kind will be needed during the coming year.

A moderate amount of new equipment was purchased during the year. Very little will be needed during the coming year. As far as it is possible to estimate, the same appropriation as that allowed last year will be sufficient for the coming year, including any new work undertaken. Provision should be made for the salary of the assistant if the request for one be granted.

An investigation conducted last summer by Prof. C. E. A. Winslow, at that time chairman of the laboratory section of the American Public Health Association, showed that our laboratory stood tenth in a list of twenty-seven state laboratories in per capita expenditure, among laboratories offering the same wide scope of work. The actual expense being \$0.004 per capita, based on our population.

DIAGNOSTIC WORK.

The total number of diagnostic examinations made during the year was 6835. During the past two years there has been a notable increase in the number of specimens for diphtheria and specimens of water for bacteriological contamination. This increase has been recognized as indicating two important lines of our work, consequently during the latter part of the year we began furnishing, on request, proper containers and mailing outfits for such specimens. The condition of specimens sent in for examination for B. tuberculosis and for intestinal parasites is often, we might say usually, unsatisfactory. The serious necessity for proper mailing outfits for such specimens will be met during the coming year.

A reference to the table of examinations and results shows that during the year over one-fourth of all specimens of sputum showed the presence of tubercle bacilli. This may be interpreted in various ways, but it suggests, at least, a serious condition in our state. Since we have no large institutions for tubercular persons the large number of positive specimens which we received indicates that

the number of people in the florid, infectious stage of the disease is very large in our State.

Modern methods of diagnosis of early and curable tuberculosis have rendered the examination of sputum a last resort. While it still holds its value as an indicator of the progress of the case it certainly should not be considered the only proof of the existence of tuberculosis. However, the distribution of the bacilli in the sputum must still remain the most important public health problem, since only those persons who are throwing off the living organisms can communicate the disease to their associates. In order to increase our chances of detecting the persons who are distributing infectious material we shall during the coming year adopt the technique of concentrating all specimens of sputum and feces by centrifugalization,. With this refinement of technique and the furnishing of suitable containers for all specimens we shall have to be content; unless the Wassermann test be taken up, as proposed by the Director of the laboratory in response to the almost unanimous request of the organized medical profession of the State. All necessary apparatus for performing this test is already in the laboratory. The additional expense therefore would consist solely in the purchase price of the necessary animals,. This would amount to not more than \$200, assuming always that the additional assistant asked for be provided. As already explained above the assistant is absolutely necessary for maintaining our work at its present standard, whether the Wassermann test be introduced or not.

TYPHOID VACCINE.

Typhoid vaccine has been manufactured and sent out from our laboratory as usual. It has not been necessary to procure any vaccine from outside sources during the year. In July of this year several deaths occurred in children who had been vaccinated with vaccine from a certain lot made in our laboratory. Other persons vaccinated from the same lot had severe reactions, general or local. The majority, (nearly three-fourths) of the persons vaccinated with vaccine from this lot had no unusual symptoms. A full report on the investigation of

the affair was made at the time. Since completing this investigation the report has been submitted to Dr. Jos. Goldberger, of the U. S. Public Health Service, and a verbal statement made to Dr. John F. Anderson, at that time Director of the laboratory of the same service. Neither of these men, nor the Director of your laboratory, have been able to arrive at a satisfactory scientific explanation of the deaths which occurred.

Due, undoubtedly, to this deplorable accident the total number of ampuls sent out this year has been somewhat less than the number for the preceding year. The total this year being 34,400 as against 39,135 for the year 1914.

PASTEUR DEPARTMENT.

The number of animals proved rabid by microscopic examination is slightly in excess of the number for the previous year. The number of persons treated was considerably less,. However, it is not likely that we shall see any marked decrease in the existence of this disease in our State in the near future. As stated in these reports before, the preventive treatment undoubtedly keeps down to a minimum the human cases, but it in no way diminishes the economic loss to the State caused by the disease in stock and valuable animals, nor does it prevent the constant exposure of persons to the attacks of possibly rabid animals, with the consequent fear and suffering. Even the treatment itself is an unpleasant experience. The disease is practically endemic with us and a dangerous epidemic outbreak of large proportions, which may result in many human deaths, may occur at any time. I will again urge that your board interest itself in securing the passage of a State-wide registration law for dogs, the law to be enforced by local health officers, and game wardens, in addition to the ordinary police officers.

We have had no failures of treatment during the year. It has been over two years since a failure of treatment has been recorded. A child, three years of age, died during the first ten days of treatment,. This child was not seen by the Director of the laboratory, but a very careful report on the case was received from the attending phy-

sician, Dr. R. K. Foster, of Timmons ville. We may certainly say that the child did not die of rabies. The actual cause was not determined. There was no evidence of infection or contamination of the virus used, and there was no paralysis. Symptoms were somewhat suggestive of anaphylactic phenomena.

The total number of persons treated since the opening of ~~our laboratory~~ ^{during 1915} now numbers 247 with no failures recorded. This brings our per cent. of failures well below three-tenths of one per cent. which is usually regarded as the possible minimum for a long series of cases.

Tabulated details of the year's work are submitted herewith.

Respectfully submitted,

F. A. COWARD, M. D.,

Director of Laboratory.

SUMMARY OF WORK IN LABORATORY FROM JANUARY 1, 1915 TO JANUARY 1, 1916.

Kind of Specimen or Examination		Posi- tive	Neg- ative	Doubt- ful	Total
WIDAL TESTS	B. Typhosus	838	1194	78	2110 ✓
	Paratyphoid	191	1914	5	2110 ✓
					4220
Sputa for T. B.		217	636	....	853 ✓
Hookworm ova		107	432	....	539 ✓
Rabies		109	57	8	174 ✓
Gonococcus		19	41	2	62 ✓
B. Diphtheria		76	293	....	369 ✓
B. Coli in Water		151	69	....	220 ✓
B. typhosus in Milk .....		....	14	....	14 ✓
B. Coli in Milk		1	2	....	3 ✓
P. Malaria		20	285	1	306 ✓
T. B. in other Discharges than Sputa ..		....	15	....	15 ✓
Mis. Path. Organisms					
Blood Cultures .....		....	1	....	1 ✓
Pyogenic Cocci		4	....	....	4 ✓
Streptococci .....		....	1	....	1 ✓
Staphylococcus		2	1	....	3 ✓
Meningococcus .....		....	1	....	1 ✓
Pneumococcus .....		....	1	....	1 ✓
Mis. Int. Para. Other than Hookworm					
Ameba Hystolitica		4	28	....	32 ✓
Tenia Saginata		1	....	....	1 ✓
Larva of Fly (Species)		1	....	....	1 ✓
Ascaris L.		1	....	....	1 ✓
Tenia Nana		4	1	....	5 ✓
Suspected Parasites .....		....	1	....	1 ✓
Mis. Spec. for Identification					
Culture from Spinal fluid		2	....	....	2 ✓
Culture from Pus .....		....	1	....	1 ✓
Fluid (Unknown origin) .....		....	1	....	1 ✓
Pus from antrum		1	....	....	1 ✓
Spinal Fluid .....		....	2	....	2 ✓
Animal inoculation for T. B.		1	....	....	1 ✓
Total		1750	4991	94	6835

Number of ampuls sent out from Jan. 1st, 1915, to
Jan. 1, 1916 35,397

WORK IN PASTEUR DEPARTMENT, 1915.

FROM JAN. 1, 1915, to JAN. 1, 1916.

AGE.

Age not given	29
Under 5 years	31
5 to 10 years	59
10 to 16 years	49
Adults	79
Oldest patient	60
Youngest patient	10 mo.

WHERE BITTEN.

Face and head	7
Hand and foot	84
Other uncovered surface	35
Through clothing	12
No information	87
Doubtful whether bitten	5
Total number of persons applying for treatment	247
Discontinued by request	11
Number of deaths	00
Total number of complete treatments.....	236
Treatment by request (head not examined) ...	33
Treated at home	208
Treated at laboratory	39

RESULT OF EXAMINATIONS.

Positive for rabies	109
Negative for rabies	57
Doubtful for rabies	8

REPORT OF BUREAU OF VITAL STATISTICS.

Columbia, S. C., 16th December, 1915.

*Dr. James A. Hayne, Sec. State Board of Health,
Columbia, S. C.*

Dear Sir:

Enclosed please find my report for the ten months of the year 1915, ending with October 31, 1915.

The death rate, you will note, is 15.4 per 1000. This shows up pretty well, I think, for the first year's work. I have used every effort towards obtaining a rate of 15 per 1000 for the year. I still have a fighting chance, but fear there will be a falling off in the November and December returns.

I have no fault to find with the way in which births are reported. People seem to take a pride in registering the births of their children. If the legislature would only enact a law compelling parents to name their babies within a reasonable time, the birth statistics would be almost perfect. My chief difficulty is in getting supplementary reports giving names. A number of certificates are still without this important data.

The majority of the registrars still retain their interest in the work and are showing commendable zeal in their efforts to send in to this office accurate returns. Some of course, are luke-warm and negligent but these I hope to weed out next year. In appointing them, it is very much a game of chance, sometimes drawing a prize and again drawing a blank. Not knowing the people throughout the State and the remuneration not being sufficient to attract men to the positions, it is a hard matter to make good selections. However, by the process of elimination, I will in time remove the drones and have an efficient corps of willing, interested workers.

I have occasional reports of undertakers who neglect their duty and fail to report deaths of the persons they bury. But a letter to them stating that they are violating the law usually brings an answer and a promise not to offend again. As I stated in my last report, the mid-

wives, many of whom are ignorant negro women, try to observe the law.

I have received several letters from registrars stating that certain physicians have failed to make reports of births and a few have never made one. I have exhausted my store of courtesy and diplomacy in my efforts to get them to obey the law and do their duty and I think the time has arrived to use stronger measures. I would suggest that after the legislature meets, that in different parts of the State, one or more of the physicians who wilfully ignore the law be prosecuted. I believe that this will have a wholesome effect and make them realize that they are just as subject to the laws of the State of South Carolina as are the mere ordinary laymen.

Some of the counties, notably Barnwell, Fairfield, Aiken, Chesterfield, Lexington and Saluda, have made a poor showing. I have done my best to make the physicians, registrars, and people at large in these counties realize the importance of registering births and deaths promptly but all my efforts have proved of no avail. I would ask what shall be done about certificates when the cause of death is either not given or is such as could not be classified by the Department in Washington. Many deaths are unattended by physicians and some certificates signed by doctors are so plainly wrong that even I, a layman, can detect the error. For example, one doctor, a few days ago, gave as the cause of death of an old man eighty-four years old "Adolescence."

The office force consists of three ladies and myself and I have received most efficient assistance from them. They are more familiar now with the work of the office and their efficiency is, therefore, greater, and I would heartily recommend that if funds are available their salaries be increased. When the pressure of work has been great I have employed extra assistance for weeks at a time.

In conclusion I will add that I have taken pride in trying to have the State make a good showing for the first year of the operation of the Vital Statistics Law and have not counted the hours given in my efforts to make the Department really mean what its name implies, Statistics vital to the interests of the people. I leave it to the

Gentlemen of the Board and yourself to decide if the results shown are worthy of material recognition.

Yours very truly,

C. WILSON MILLER,

Chief Clerk.

TOTAL NUMBER OF BIRTHS AND DEATHS FOR
SOUTH CAROLINA FROM JANUARY 1, 1915,
TO OCTOBER 31, 1915.

Counties	Deaths	Rate	Births	Rate	Still Deaths	Still Births
Abbeville	389	13.1	825	27.8	46	47
Aiken	427	11.8	693	19.1	37	45
Anderson	837	12.9	1629	25.3	48	47
Bamberg	207	12.8	355	22.1	23	28
Barnwell	286	10.	538	18.8	33	43
Beaufort	471	15.6	463	23.1	65	66
Berkeley	347	17.6	577	29.4	50	51
Calhoun	251	16.5	496	32.7	26	46
Charleston	2075	27.9	1732	23.3	279	258
Cherokee	293	12.2	724	30.2	14	14
Chester	412	16.5	729	29.3	32	31
Chesterfield	265	10.8	818	33.3	27	31
Clarendon	400	13.9	1027	35.9	72	74
Colleton	378	12.3	710	23.3	48	47
Darlington	497	15.3	1115	34.4	70	77
Dillon	264	12.7	511	24.6	22	27
Dorchester	210	13.4	351	22.4	27	34
Edgefield	345	13.8	640	25.8	29	36
Fairfield	266	10.8	676	27.5	29	30
Florence	678	25.	1502	45.6	122	122
Georgetown	399	21.	437	23.	42	44
Greenville	1028	16.1	1884	29.5	103	102
Greenwood	463	14.9	754	24.1	33	34
Hampton	149	15.6	387	23.1	29	30
Horry	343	15.8	1026	47.5	54	57
Jasper	116	15.6	236	23.1	5	7
Kershaw	285	11.7	608	24.9	34	34
Lancaster	329	14.	720	30.9	24	29
Laurens	501	13.7	925	25.3	48	53
Lee	326	14.3	769	33.7	37	42
Lexington	295	10.1	633	21.7	34	41
Marion	304	16.1	650	34.4	35	36
Marlboro	421	15.2	798	28.9	41	56

Counties	Deaths Rate		Births Rate		Still	Still
					Deaths	Births
Newberry	374	12.1	750	24.3	37	40
Oconee	291	11.9	702	28.7	27	26
Orangeburg ...	754	14.7	1636	32.1	118	118
Pickens	275	11.5	795	33.2	29	33
Richland	1501	29.8	1413	28.1	109	109
Saluda	181	9.9	397	21.6	13	13
Spartanburg ...	1032	13.3	2147	27.7	83	79
Sumter	685	19.8	1105	31.9	85	84
Union	357	13.2	703	26.1	23	25
Williamsburg ..	483	14.1	1093	32.1	69	72
York	514	12.	963	22.7	42	44

Total Deaths	20,704	Rate.....	15.4
Total Births	37,642	Rate.....	28.1
Total Still deaths	2,253	Rate.....	1.4
Total Still-births	2,362	Rate.....	1.7

BIRTHS IN STATE OF SOUTH CAROLINA FROM

JANUARY 1, 1915, TO SEPTEMBER 30, 1915.

White Male	8,166
White Female	7,413
Total	15,579
Negro Male	9,109
Negro Female	8,695
Total	19,804
Indian Male	1
Unknown (Date not given).....	133

DEATHS IN SOUTH CAROLINA FROM JANUARY
1, 1915, TO OCTOBER 31, 1915, FROM THE FOLLOWING DISEASES:

Diseases	Number	Rate
Tuberculosis Pulmonalis	1735	107.
Tuberculosis Bowels	42	2.6
Tuberculosis Peritoneal	36	2.2
Tuberculosis Joint	7	.43
Tubercular Meningitis	24	1.5
Tubercular Laryngitis	8	.5
Pellagra	1306	81.2
Diphtheria	75	4.7
Scarlet Fever	7	.43
Measles	4	.24
Typhoid Fever	474	29.4
Smallpox	2	.12
Cancer	435	27.
Malarial Fever	419	26.
Cerebro Spinal Meningitis	49	3.
Whooping Cough	193	12.
Pneumonia Lobar	1010	62.
Pneumonia Broncho	258	16.
Pneumonia Hypostatic	18	1.1
Pleurisy	23	1.4
Diseases of the circulation	2104	130.
Diseases of the kidneys	1364	84.8
Syphilis	101	6.3
Tetanus	25	1.5
Typhoid Pneumonia	11	.7
Dysentery	456	28.3
Typhoid Dysentery	5	.31
Amoebic	7	.43
Scurvy	1	.06
Meningitis	77	4.8
Intestinal Diseases	1144	71.1
Erysipelas	11	.7
Homicide	91	5.6
Suicide	42	2.6
Railroad Accidents	44	2.7
General Accidents	416	25.8
Lightning	18	1.1
Legal Electrocutions	6	.37

DEATHS ACCORDING TO SEX AND AGE IN SOUTH
CAROLINA FROM JANUARY 1, 1915, TO
SEPTEMBER 30, 1915.

WHITE MALE

Age	Number
Under 1 Year	772
1 to 5 Years	435
5 to 10 "	76
10 to 20 "	150
20 to 30 "	225
30 to 40 "	235
40 to 50 "	257
50 to 60 "	356
60 to 70 "	432
70 to 80 "	374
Over 80 "	157
Unknown	26
Total	3495

WHITE FEMALE

Under 1 Year	609
1 to 5 Years	335
5 to 10 "	73
10 to 20 "	150
20 to 30 "	312
30 to 40 "	336
40 to 50 "	266
50 to 60 "	277
60 to 70 "	379
70 to 80 "	406
Over 80 "	264
Unknown	31
Total	3438

DEATHS ACCORDING TO SEX AND AGE IN SOUTH
CAROLINA FROM JANUARY 1, 1915, TO
SEPTEMBER 31, 1915.

NEGRO MALE

Age	Number
Under 1 Year	1342
1 to 5 Years	627
5 to 10 "	198
10 to 20 "	403
20 to 30 "	613
30 to 40 "	436
40 to 50 "	430
50 to 60 "	406
60 to 70 "	461
70 to 80 "	345
Over 80 "	195
Unknown	93
Total	5549

NEGRO FEMALE

Under 1 Year	1227
1 to 5 Years	641
5 to 10 "	185
10 to 20 "	555
20 to 30 "	986
30 to 40 "	709
40 to 50 "	527
50 to 60 "	393
60 to 70 "	407
70 to 80 "	291
Over 80 "	221
Unknown	88
Total	6230

INDIAN MALE

Under 1 Year	3
1 to 5 "	1
10 to 20 "	1
30 to 40 "	1
40 to 50 "	1
70 to 80 "	1

INDIAN FEMALE

1 to 5 Years	1
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PARTIAL LIST OF DISEASES FOR NOVEMBER, 1915.

Diseases	Number
Tuberculosis Pulmonalis	100
Tuberculosis Bowels	3
Tuberculosis Puritoneal	1
Tubercular Meningitis	3
Tubercular Laryngitis	2
Pellagra	73
Diphtheria	10
Typhoid Fever	40
Cancer	28
Malarial Fever	29
Cerebro Spinal Meningitis	1
Whooping Cough	2
Pneumonia	44
Pneumonia Broncho	7
Diseases of the Circulation	97
Diseases of the Kidneys	86
Syphilis	11
Typhoid Pneumonia	1
Dysentery	29
Amoebic	1
Meningitis	2
Intestinal Diseases	67
Erysipelas	1
Homicide	8
Suicide	1
Accidents	58

RETURNS FOR THE MONTH OF NOVEMBER, 1915.

	No.	Rate
Deaths	1619	12.2
Births	2770	20.7

SUPPLIES AND LETTER SENT OUT 1915.

Letters	7000
Packages supplies	2128

REPORT OF SOUTH CAROLINA SANATORIUM.

December 15, 1915.

*To the Members of The State Board of Health,
Columbia, S. C.*

Gentlemen:

I take pleasure in presenting the first annual report of the South Carolina Sanatorium.

The first patient was received May 22, 1915. Twenty-three have been admitted to date. Of the eleven now resident, three have been in the Sanatorium less than sixty days, four less than four months, two less than six months and two six and one-half months; ten are improved and one unimproved.

Of the twelve discharged, five remained less than sixty days, four less than four months, and three, four months or more. Eight were improved and four unimproved.

On admission two cases were incipient, thirteen, moderately advanced, and eight far advanced. With one exception all have gained in weight, the total gain being $300\frac{1}{4}$ pounds, the average gain per patient, approximately 13 pounds. The total number of hospital days is 2075.

The treatment has been hygienic and dietetic with graduated exercise. All patients, when free of fever, with pulse rate not increased and without active symptoms, save cough and expectoration, have had exercise prescribed. The exercise has been carefully controlled and watch kept for any untoward symptoms. Tuberculin has not been used as cases considered favorable have not remained sufficiently long to warrant giving it. A Wassermann test has been made upon the serum of each patient. Five have reacted positively.

Every week informal talks on the practical side of tuberculosis and health subjects have been held. Effort has been made to stimulate an interest in nature study, bird life, flowers, etc.

All applicants have been admitted in their regular turn and no one eligible has been refused. Many advanced cases could not be accepted owing to lack of facilities for

their proper care, while others could not come on account of the expense.

On the farm a few vegetables, corn and seventy-five bushels of sweet potatoes were raised. The soil is sandy and very poor. It will require considerable improvement to make it a source of revenue.

The institution has furnished its own milk. Already, we are in need of a modern cow-barn and dairy. An enclosed pasture for cows and hogs is really necessary for the economic handling of these animals. At present our live stock consists of one mule, three cows, and seventeen hogs and pigs.

It is recommended that the amount of each patient's laundry be limited to forty cents a week; any excess to be paid by the patient. Three beds have been maintained by the special legislative appropriation. Dr. Reed Smith, as Treasurer of the Red Cross Seal Fund, placed at the disposal three hundred thirty-five dollars for the support of one patient, the residue, if any, to be applied as we thought best.

Religious exercises have been held from time to time by ministers from Columbia.

Contributions of books, magazines, papers and graphophones have come from friends of the institution throughout the State. These have done much to relieve the tedium and break the monotony of "taking the cure."

Urgent needs, in addition to the barn and dairy and pasture already mentioned, are a laboratory, incinerator, a building for women, larger dining room, store-room, cold storage, a modern kitchen, diet-kitchen and a vacuum cleaner. Hot water or steam heat in the administration building would add much to the comfort of all and be more economical and cleanly than the present dirty, expensive method of heating with grates. To heat the rooms in use requires six fires, and then the halls are unheated. There is need for an automobile.

I wish gratefully to acknowledge my appreciation of the support and co-operation of your Board. I am under many obligations to the officials of the State Hospital for the Insane for furnishing pasturage, hauling coal and

clearing land; and to the physicians of Columbia who have aided in our work.

Respectfully submitted,
ERNEST COOPER,
 Superintendent.

OFFICE OF RICHLAND COUNTY HEALTH
OFFICER

1211 Gervais St., Columbia, S. C., Dec. 27, 1915.

*The Executive Committee of The State Board
of Health, Columbia, S. C.*

Gentlemen :

I have the honor to submit the following information in reference to the appropriation for county health work by Richland County :

For Health Officer's salary	\$2,000 per year
For conveyance or traveling expenses.....	300 per year.
For equipment and supplies	200 per year

While the appropriation of \$300 for traveling expenses seems to be sufficient for such expenses within the confines of the county, an additional \$100 would promote very much the efficiency of the work by enabling the Health Officer to attend meetings of Public Health Associations outside of the county, such as the Southeastern Sanitary Association. The County Health Officers' Association of North Carolina, a similar Association in Georgia, and others.

In reference to the appropriation for equipment and supplies, no provision is made for an office itself. Office rent, heat, light, phone, janitor service, amounting to \$300, medicines, disinfectants, fumigants, and other necessary medical supplies, amounting to \$100, printing, stationery, postage, special books and journals, clerical help when necessary, miscellaneous equipment and office supplies, amounting to \$100, would make a total of \$500 for "equipment and supplies," instead of \$200 as per last appropriation. This amount is very much needed.

The additional appropriations as stated above are recommended.

Respectfully,

H. M. SMITH, M. D.,
Health Officer, Richland County.

REPORT OF RICHLAND COUNTY HEALTH OFFICER.

Office of Health Officer, Richland County,
1211 Gervais St., Columbia, S. C.,
December 11, 1915.

*The Executive Committee of
The State Board of Health,
Columbia, S. C.*

Sirs:

I have the honor to submit the following report as Health Officer for Richland County for the period between March 12, 1915, (date of appointment), and December 11, 1915.

I. MEDICAL EXAMINATION OF RURAL SCHOOL CHILDREN:

1. No. of white pupils examined.....1200
2. No. of colored pupils inspected 350
3. Principal diseased conditions and physical defects in the white pupils examined:
 - a. Dental caries65%
 - b. Defective vision20%
 - c. Enlarged and diseased tonsils.....18%
 - d. Adenoids 5%
 - e. Skin disease 2%
 - f. Miscellaneous: 1 to 5 cases each of malaria, heart disease, chorea, measles, torticollis, motor tic, spinal tuberculosis, goiter, deformity, infantile paralysis, appendicitis, otitis media, hookworm, pellagra, pediculosis.
 - g. Not vaccinated against smallpox, as noted at first visit55%
 - h. Physically sound25%

4. Records:

A record of each examination is kept on a special Record Card. The parents are notified on a separate Notification Card of the defects found in the children and are advised as to the treatment needed. Copies of these blanks are attached herewith.

5. Treatment procured by the parents following these examinations:

- a. Of the school children last spring from 10% on up to 75% of them in the various schools have received the treatment advised, with the exception of two schools where so far no treatment has been obtained. In many cases where the parents were financially unable to procure the needed treatment these children have been treated free of charge at the Columbia Children's Clinic.
- b. More than 1100 pupils have been vaccinated by me this fall and a good many others by other physicians, so that at present practically all white pupils in the county are now vaccinated against smallpox.

Of the colored pupils not yet vaccinated the remainder will be attended to on my visits to these schools.

6. Number of county rural schools, 48 white, 66 colored.

7. Enrollment in these schools, (1914-1915):
3279 white, 5768 colored.

II. SANITARY INSPECTION OF SCHOOLS.

A sanitary survey is made of each school and a record kept showing the material and number of rooms of the building, material used and color of walls, methods of heating, ventilation, and lighting, kind and position of blackboards and desks, presence and condition of cloak-rooms, condition of school rooms, area, condition, and drainage of school yards, source and condition of water supply, use of individual drinking cups or sanitary fountains, screening, methods of sweeping, and kind, condition, care and location of privies.

The principal sanitary defects noted are as follows:

1. Water Supply.

Most of the schools depend for their water supply upon unprotected, poorly constructed, open surface wells with buckets and chains or upon equally unprotected and uncared for springs. A few had wells and pumps in good condition, and one school used branch water only.

2. Drinking Arrangements.

The use of individual drinking cups was unsatisfactorily enforced in most of the schools that pretended to use them, while in other schools only one or two cups or glasses sufficed for the whole school. In a few schools all the pupils drank directly from the same pump spout.

3. Facilities for Washing Hands and Faces.

Theses were found to be extremely meager everywhere and frequently entirely absent, towels and soap for this purpose being a rare curiosity.

4. Cloakrooms.

About one-third of the schools had cloakrooms, some of which were used properly for this purpose and others for woodhouses and store-rooms.

5. Privies.

Practically every school visited had an indecent, filthy, disease-breeding, open-back, surface privy, or had none at all, polluting the soil of the surrounding woods and doubtless tracking it back into the yards and buildings.

6. Miscellaneous.

Screening was generally absent, and dry sweeping was the usual method. Ventilation, heating, lighting, placing of blacking of blackboards, and seating were good, bad, and indifferent in the various schools, while the architecture and structure of many of the school houses violated many of the essential principles.

These defects are now being remedied in many respects, and in particular practically all these schools have installed during the summer sanitary pit privies, while a few have installed regular sewage disposal plants and still others are contemplating similar plants at an early date. The pupils themselves will carry back into their own homes proper ideas of sewage disposal, and in various, perhaps many, instances will effect similar changes there.

A bulletin on the proper methods of the disposal of human excreta in rural districts was found to be necessary, and one was prepared by the County Health Officer, which was adopted and published by the State Board of

Health. This has been of much service in this connection.

The formation of Health Clubs in the rural schools among the pupils, with regular meetings and exercises for the study, discussion, and practical application of essential hygienic and sanitary measures, has been presented to the county teachers, and the adoption of such a plan with the co-operation of the teachers, the Rural School Supervisor, and the County Health Officer is expected to be of considerable benefit to the pupils, the schools, and their communities.

III. NUMBER OF VISITS TO SCHOOLS 83

IV. LECTURES AT SCHOOLS, CHURCHES, AND ASSOCIATIONS.

Number of lectures (including illustrated lectures with projection lantern).....	81
Estimated Attendance	4000

V. COMMUNITY WORK.

A rural district comprising about 200 families was chosen for this work during the months of July and August. The families of the 75 property owners were visited, and through them it was hoped to reach in large measure the additional 125 tenant families. A sanitary survey record, as per blank attached herewith, was made of each family visited, including thereon the number of adults and children, the diseases suffered from during the past five years, the type and location of water supply and privies, and other desired data. Needed sanitary recommendations were personally made and explained, and some good was accomplished. To be entirely successful such work requires a follow-up system by sanitary inspectors.

VI. OTHER SANITARY INSPECTIONS.

These included inspections of dairies, slaughter pens, stockyards, mosquito and fly-breeding places, drainage areas, suspected water supplies including their disinfection, garbage and night soil disposal, soil polluted areas

in Columbia suburbs, incorporated towns without boards of health, the Tuberculosis Camp, the Rescue Orphanage, cotton mills, convict camps, State Fair Grounds, and other miscellaneous things and places. Many needed changes were instituted.

Two incorporated towns, Eau Claire and Arden, have no boards of health as required, only the mayor and the policeman acting in that capacity. They have been advised as to the requirements and have been furnished with models of ordinance and regulations.

Two cotton mills, the Palmetto and the Capital City, empty their raw sewage directly into a stream which runs through the suburbs of Columbia and through pasture lands. They have been advised to put in satisfactory sewage disposal plants. As to the convict camps, recommendations were made to the County Supervisor of Roads for the better sanitation of these camps, with especial reference to the kitchens, care of stables and pig pens, flooring of the sleeping tents, care of the bedding, provision of canvas sleeping cots instead of straw on the bare ground, night buckets, and disposal of garbage, slops, and human excreta.

The State Fair Grounds were inspected daily during Fair Week, and various recommendations for the improvement of sanitary conditions were made to the Secretary of the Fair Association, some of which were partially carried out. Sanitation of the Fair Grounds seems to have received little or no official or other recognition by the State Fair Association, and it is respectfully recommended that steps be taken requiring the carrying out of proper sanitary measures. Policing of the grounds, disposal of garbage and slops, removal of stable manure, protection of food, fruits, ice cream, and drinks from dust and flies, the abolition of the present surface privies and their disgracefully filthy condition, and the installation of proper means of sewage disposal at the fair grounds, are some of the principle features requiring regulation.

VII. ANTITYPHOID VACCINATION.

Some progress has been made in this connection. Several appointments for this purpose in various sections of

the county have brought out volunteers for the free vaccination offered, while others have received this treatment free at the County Health Officer's office.

VIII. REPORTING OF DISEASES BY PHYSICIANS.

Following the ruling from the office of the State Board of Health that cases of reportable diseases in Richland county outside of Columbia and Eastover should be reported to the County Health Officer, there have been received at this office reports of 167 cases of disease from April 1 to December 1.

Of the 12 physicians outside of Columbia 5 have made reports, and 7 have made none.

Of the 65 physicians in Columbia 25 have made reports, and 40 have made none.

Cases of tuberculosis and typhoid fever are visited, and, supplementary to the attending physician, instructions as to the necessary care and precautions to prevent the spread of these diseases are given to the patients and families, along with the literature on these subjects.

Cases of smallpox, scarlet fever, and diphtheria have been quarantined throughout the county as they occur, and the houses disinfected on the patient's recovery.

Very respectfully,

H. M. SMITH, M. D.,
Health Officer, Richland County.

REPORT OF CHILDREN'S CLINIC.

Columbia, S. C., Jan. 5., 1916.

*Dr. James A. Hayne, Sect. Board of Health,
Columbia, S. C.*

My Dear Doctor:

At the last session of the legislature an appropriation of \$500.00 was made to the Columbia Children's Clinic for the purpose of having indigent children from the County treated, especially was it proposed that cases be referred to the Clinic by the County Health Officer.

The success of medical inspection in school children and the work at the Clinic is so intimately associated and inter-dependent upon each other that I feel that I should report to you on the progress of the experiment. You will recall, owing to the delay in getting the machinery for the county health office in working order that the work did not begin until late in the school session. After it was begun the results became more evident in the work at the Clinic, for since then there have been treated about one hundred and fifty county cases. These cases included one or more physical defects, especially throat and dental work. At least one fourth of these children had hook worm disease for which they were treated. At present there are quite a number of children under treatment. Our general plan is that when a child is presented at the Clinic with a card from the County Health Officer another complete physical examination is made and treatment is begun. This treatment usually goes through a period of from one to two weeks, depending upon the condition that prevails. We find that it is not unusual for a child to have adenoids, bad teeth and perhaps hook worm disease, in such cases the first thing done is to eradicate the worms then repair the teeth and finally do whatever throat work is necessary. One of the teachers in the County, who has referred several children, speaks in the highest terms of the results obtained.

We feel that as the people become more familiar with the plans the demand will grow.

Yours very truly,

WILLIAM WESTON,
Chief of Clinic.

REPORT OF THE ANTI-TUBERCULOSIS COMMIT-
TEE OF THE ASSOCIATED CHARITIES
OF COLUMBIA, S. C.

The Richland County Fresh Air Camp is located five miles from the Capitol Building at Ridgewood, on an acre of pine land donated by Mr. L. T. Wilds.

The Camp has been maintained by money appropriated by the County delegation at the 1915 session of the Legislature and donations from public spirited citizens of Columbia.

The Plant at present is valued at \$1500.00 (Fifteen hundred dollars) which has been donated by Church Societies, private individuals and Fraternal orders.

Twenty-four individual cases have been cared for during the past year; and an average of twelve patients per month.

Eight of this number have been discharged as apparently arrested cases, and are now self-supporting.

Below is the financial report for eleven months:

Amount of money received from Richland county	\$2288.87
For board for patients	339.00
From charity	1189.51
	<hr/>
	\$4017.38
Estimated value of donations (provisions, fuel, ice, fruit, etc.)	500.00
	<hr/>
Total	\$4517.38
Expenditures:	
For building	\$1038.23
For Maintenance	2880.11
Cash on hand	99.04
	<hr/>
Total	\$4017.38
Cost per capita	\$1.03 per day

THE MEDICAL COLLEGE OF SOUTH CAROLINA.

This institution was found in excellent condition, except for the fact that flies were plentiful in the dining room. The plan of having fans installed facing the doors was advised.

The health of the institution was good. The ration of the cadets I think is good and plentiful.

THE MEDICAL COLLEGE OF SOUTH CAROLINA.

This institution was inspected thoroughly and was found in excellent condition.

THE STATE COLORED COLLEGE.

The bathing facilities at this institution are utterly inadequate, and should be remedied. Also the hospital facilities are almost none.

These features should have immediate attention. The President realizes the need for this, but has not the funds.

The class rooms are poor also. The health of the student body is good. The dormitories are clean, but there is nothing like sufficient toilet facilities for the number of pupils. Flies were found in the dining room, and the same recommendation as to electric fans made as at the Citadel. We feel that the President of this institution is doing the best he can with the funds he has, and believe that had he sufficient money he would add the necessary equipment.

The bathing and toilet facilities need immediate attention.

The ration is very good, except that the institution has not sufficient land to maintain a large enough dairy herd.

W. J. BURDELL, M. D.,

For Committee.

REPORT OF DR. F. L. PARKER.

To the Chairman and Members of the Executive Committee of the State Board of Health of South Carolina.

Gentlemen :

I have the honor to submit the following report of analyses of samples of water from the public water supplies of South Carolina, made under the direction of the State Board of Health, in accordance with an Act to Protect and Secure the Purity of the Water Supply of Towns and Cities.

A total of 136 samples of water from the various cities and towns maintaining public water supplies were received for sanitary, chemical and bacterial analysis. The analyses indicate that the waters are of good quality and free from contamination. In a few cases, the samples first submitted showed either chemical or bacterial indications of contamination. In these cases additional samples were called for in order to ascertain whether the contamination was temporary or permanent. In each case further investigation and final examination indicated that the contamination in the first sample was accidental or temporary and that the water was free from contamination. As noted in previous reports, there has been in general a gradual improvement in the quality of the waters and the management of the supplies since the institution of these tests and supervision by the State Board of Health. The following cities have noted improvements or additions to their plant during the past year: Anderson, Camden, Columbia, Georgetown, Kingstree, Marion, Spartanburg, and Union.

In addition to the waters from the public water supplies 22 samples from the various supplies at Winthrop Normal & Industrial College have been examined and were found to be free from contamination. Thirty miscellaneous samples have been received from the Board of Health and other parties.

Of the 34 supplies, 1 is an impounded supply depending upon the surrounding water-shed of 45 square miles for

its source, 1 from mountain streams without filtration, 1 from springs without filtration, 14 from branches with filtration, 17 from wells without filtration.

The following is a tabulated report of the officials in charge of plants, source, capacity, treatment, daily consumption and consumption per capita, and analyses of samples.

Respectfully submitted,
 FRANCIS L. PARKER, M. D.,
 Chemist and Bacteriologist.

RESULTS IN PARTS PER MILLION.

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Nitrogen as	Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
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Water Supply of Abbeville, S. C.

Abbeville Water & Electric Plant. Owned by city. Superintendent, E. M. Anderson. In charge of collection of samples, E. M. Anderson. Chairman local Board of Health, Dr. C. H. McMurray. Source: Creek $1\frac{1}{4}$ miles from city. Capacity 250,000 gallons per day, filtered by mechanical filter. Treatment $\frac{1}{2}$ grain of Alum per gallon. Capacity of plant 500,000 gallons per day. Average consumption, 200,000 gallons per day. Consumption per capita, 40 gallons per day. Service metered.

March 10, '15	4.00	0.02	0.02	0.00	74.00	Negative	Negative
May 29, '15	5.00	0.01	0.02	0.00	108.00	Negative	Negative
August 28, '15	6.00	0.01	0.04	0.00	67.00	Negative	Negative
November 30, '15	6.00	0.01	0.02	0.00	105.00	Negative	Negative

Water Supply of Aiken, S. C.

City Water Works. Superintendent, H. Sudlow. In charge of collection of samples, J. L. McCarter. Chairman local Board of Health, I. W. Fowler. Source: Collection of springs, $6\frac{1}{2}$ miles from city. Capacity, 2,000,000 gallons per day, not filtered. Capacity of plant, pumpage, 1,500,000 gallons per day. Average consumption, 350,000 gallons per day. Consumption per capita, 80 gallons per day. 75% metered.

April 29, '15	4.00	0.08	0.04	0.00	21.00	Negative	Negative
June 9, '15	5.00	0.04	0.01	0.00	12.00	Negative	Negative
September 23, '15	4.00	0.01	0.01	0.00	44.00	Negative	Negative
December 15, '15	5.00	0.02	0.01	0.00	33.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Anderson, S. C.								
Southern Public Utilities Company. Manager, H. A. Orr. In charge of collection of samples, R. P. Long. Chairman local Board of Health, Dr. Frank Ashmore.								
Source: Bailey's Creek 2 miles from city. Capacity, 4,000,000 gallons per day. Filtered by mechanical filter. Treatment, $\frac{1}{4}$ grain Alum per gallon. Capacity of plant, 1,300,000 gallons per day. Average consumption 600,000 gallons per day. Consumption per capita, 100 gallons per day. Service metered.								
March 5, '15	4.00	0.02	0.03	0.00	0.00	40.00	Negative	Negative
June 1, '15	6.00	0.02	0.02	0.25	0.00	66.00	Negative	Negative
August 28, '15	4.00	0.01	0.02	0.00	0.00	66.00	Negative	Negative
December 3, '15	4.00	0.01	0.02	0.00	0.00	64.00	Negative	Negative
Water Supply of Barnwell, S. C.								
Barnwell Light & Water Works. Owned by city. Superintendent, F. H. Miller. In charge of collection of samples, F. H. Miller. Chairman local Board of Health, Dr. J. G. Wooley.								
Source: Two wells in city, $4\frac{1}{2}$ and 6 inches diameter, 151 feet deep. Capacity 72,000 gallons per day. Not filtered. Capacity of plant 72,000 gallons per day. Average consumption 72,000 gallons per day. Consumption per capita, 30 gallons per day. Service 50% metered.								
March 6, '15	5.00	0.01	0.01	0.00	0.00	93.00	Negative	Negative
June 24, '15	7.00	0.01	0.01	0.00	0.00	101.00	Negative	Negative
August 19, '15	7.00	0.01	0.03	0.00	0.00	112.00	Negative	Negative
December 3, '15	6.00	0.02	0.01	0.00	0.00	149.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
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Water Supply of Beaufort, S. C.

Town of Beaufort, Water & Light Department. Superintendent, H. R. Pollitzer. In charge of collection of samples, H. R. Pollitzer. Chairman local Board of Health, Dr. C. M. Griffin.

Source: Well, diameter 12 inches, depth 125 feet, in center of city. Not filtered. Average consumption, 33,000 gallons per day. Consumption per capita, 150 gallons per day. Service not metered.

March 10, '15	29.00	0.14	0.05	0.00	0.00	220.00	Negative	Negative
May 31, '15	30.00	0.12	0.03	0.00	0.00	200.00	Negative	Negative
October 7, '15	30.00	0.12	0.50	0.00	0.00	172.00	Negative	Negative

Water Supply of Bennettsville, S. C.

Bennettsville Electric & Water Plant. Owned by city. Manager, E. C. Morrison. In charge of collection of samples, E. C. Morrison and J. M. Easterling. Chairman local Board of Health, A. J. Matheson.

Source: 8 wells 4½ inches diameter, 60 feet deep, pumped. Capacity, 220,000 gallons per day. Consumption per capita, 75 gallons per day. Service metered.

March 5, '15	12.00	0.02	0.02	0.50	0.00	26.00	Negative	Negative
May 29, '15	12.00	0.01	0.02	0.40	0.00	94.00	Negative	Negative
September 1, '15	13.00	0.01	0.01	0.20	0.00	79.00	Negative	Negative
December 2, '15	13.00	0.08	0.06	0.00	0.00	54.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

119

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Camden, S. C.							
Municipal Water & Light Plant. Superintendent, E. D. McCutchan. In charge of collection of samples, E. D. McCutchan and J. W. Wilson. Chairman local Board of Health, J. W. Wilson.							
Source: Springfel Creek, 1 mile from city limits. Capacity, 7,200,000 gallons per day, filtered by mechanical filter. Treatment $1\frac{1}{4}$ grain Alum per gallon, 1.29 grains Soda per gallon, .03 grain Hypochloride of Lime per gallon. Capacity of plant 575,000 gallons per day. Service metered.							
March 1, '15	4.00	0.01	0.09	0.00	18.00	Negative	Negative
May 29, '15	5.00	0.01	0.02	0.00	55.00	Negative	Negative
September 8, '15	4.00	0.01	0.05	0.00	80.00	Negative	Negative
December 11, '15	5.00	0.03	0.02	0.00	36.00	Negative	Negative
Water Supply of Charleston, S. C.							
Charleston Light & Water Co. Superintendent, J. M. Worthen. In charge of collection of samples, F. L. Parker. Chairman local Board of Health, J. A. Ball.							
Source: Goose Creek, 12 miles from City. This is an impounded supply, the reservoir being an old tide water basin dammed off from tidal sea water. Area of flooded reservoir 2,500 acres. Capacity of reservoir, 3,000,000 gallons, which would supply about 10,000,000 gallons per day. Filtered by mechanical filter. Treatment, $1\frac{3}{4}$ grains Alum per gallon and $\frac{3}{4}$ grains Lime per gallon. Capacity of plant, 6,000,000 gallons per day. Average consumption, 5,000,000 to 6,000,000 gallons per day. Consumption per capita, 100 gallons per day. Service partially metered.							
March 3, '15	9.00	0.01	0.10	0.00	76.00	Negative	Negative
June 3, '15	9.00	0.01	0.08	0.00	71.00	Negative	Negative
September 8, '15	9.00	0.01	0.15	0.00	76.00	Negative	Negative
November 30, '15	14.00	0.02	0.10	0.00	91.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Chester, S. C.								
Chester Water Works, owned by city. Superintendent, James Hamilton. In charge of collection of samples, James Hamilton. Chairman local Board of Health, Dr. S. W. Prior.								
Source: River 3 miles from city. Capacity 7,200,000 gallons per day, filtered by mechanical filter. Treatment, 2 grains Alum per gallon. Capacity of plant, 720,000 gallons per day. Average consumption 300,000 gallons per day. Consumption per capita, 60 gallons per day. Service metered.								
March 2, '15	7.00	0.03	0.03	0.00	0.00	121.00	Negative	Negative
June 1, '15	8.00	0.02	0.03	0.00	0.00	90.00	Negative	Negative
September 1, '15	7.00	0.01	0.01	0.00	0.00	140.00	Negative	Negative
December 3, '15	7.00	0.01	0.02	0.00	0.00	122.00	Negative	Negative
Water Supply of Clinton, S. C.								
Municipal Water & Light Plant. Superintendent, B. B. Mill. In charge of collection of samples, B. B. Mill. Chairman local Board of Health, Dr. T. L. W. Bailey.								
Source: 2 wells, 8 and 10 inches in diameter, in city. Capacity, 180,000 gallons per day, not filtered. Average consumption, 75,000 gallons per day. Consumption per capita, 25 gallons per day. Service metered.								
March 10, '15	7.00	0.01	0.02	0.00	0.00	180.00	Negative	Negative
June 1, '15	6.00	0.01	0.01	0.30	0.00	164.00	Negative	Negative
September 18, '15	7.00	0.01	0.01	0.01	0.00	166.00	Negative	Negative
December 15, '15	8.00	0.01	0.01	0.20	0.00	205.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Columbia, S. C.								
Water Department, City of Columbia, S. C. Owned by City. Superintendent, T. C. Wyse. In charge of collection of samples, G. H. White. Chairman local Board of Health, Dr. S. B. Fishburne.								
Source: Congaree River, 1 mile from city. Capacity, practically unlimited. Filtered by mechanical filter.								
Capacity of plant, 7,000,000 gallons per day. Treatment, 1.5 grains Alum per gallon. Average consumption, 5,000,000 gallons per day. Consumption per capita, 150 gallons per day. Service metered.								
March 4, '15	5.00	0.01	0.01	0.00	0.00	52.00	Negative	Negative
June 1, '15	5.00	0.01	0.01	0.10	0.00	93.00	Negative	Negative
September 7, '15	4.00	0.01	0.02	0.00	0.00	62.00	Negative	Negative
December 2, '15	4.00	0.01	0.03	0.00	0.00	124.00	Negative	Negative
Water Supply at Darlington, S. C.								
Carolina Central Electric Co. Superintendent, C. L. Romydy. In charge of collection of samples, C. L. Romydy. Chairman local Board of Health, Dr. J. T. Coggeshall.								
Source: Well, diameter 8 inches, depth 385 feet, in city. Capacity, 288,000 gallons per day. Filtered by mechanical filter. Treatment, 0.4 grains per gallon Soda Ash, 0.2 grains per gallon Alum. Capacity of plant, 225,000 gallons per day. Average consumption, 125,000 gallons per day. Consumption per capita, 35 gallons per day. Service metered.								
March 3, '15	4.00	0.01	0.01	0.00	0.00	30.00	Negative	Negative
May 29, '15	5.00	0.01	0.01	0.01	0.00	58.00	Negative	Negative
August 3, '15	4.00	0.01	0.02	0.00	0.00	42.00	Negative	Negative
December 2, '15	3.00	0.02	0.02	0.00	0.00	43.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
Water Supply of Dillon, S. C.								
Dillon Water Works Plant. Owned by City. Secretary & Treasurer, B. A. Bedenbaugh. In charge of collection of samples, M. D. Davis. Chairman local Board of Health, Dr. J. A. Hamer.								
Source: River, about 2 miles from city. Capacity, 288,000 gallons per day. Filtered by mechanical filter. Treatment, Soda Ash and Alum. Capacity of plant, 130,000 gallons per day. Average Consumption, 12,000 gallons per day. Consumption per capita 30 gallons per day. Service metered.								
March 10, '15	7.00	0.02	0.04	0.00	0.00	46.00	Negative	Negative
June 9, '15	5.00	0.02	0.04	0.00	0.00	77.00	Negative	Negative
September 18, '15	6.00	0.01	0.04	0.00	0.00	75.00	Negative	Negative
December 2, '15	5.00	0.02	0.07	0.00	0.00	80.00	Negative	Negative
Water Supply of Easley, S. C.								
City Water & Light Plant. Owned by city. Superintendent, C. D. Bolt. In charge of collection of samples, C. D. Bolt. Chairman local Board of Health, T. B. Higgins.								
Source: Wells and branch. Wells, diameter 2 inches, depth 40 feet, pumped, distance from city three-quarters of a mile. Capacity, 150,000 gallons per day. Branch water filtered by mechanical filter. Treatment, Lime and Alum. Average consumption, 40,000 gallons per day. Consumption per capita, 15 gallons per day. Service metered.								
March 18, '15	3.00	0.02	0.03	0.00	0.00	10.00	Negative	Negative
June 2, '15	5.00	0.01	0.02	0.00	0.00	37.00	Negative	Negative
September 8, '15	6.00	0.03	0.05	0.00	0.00	56.00	Negative	Negative
December 10, '15	3.00	0.02	0.04	0.00	0.00	53.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
Water Supply of Florence, S. C.								
City of Florence Water Department. Owned by city. Superintendent, M'Kean Maffitt. In charge of collection of samples, M'Kean Maffitt. Chairman local Board of Health, Dr. F. T. Covington.								
Source: Well, 12-10-8 inch casing, 6 inch discharge, 650 feet deep; pump air; in center of city, rear City Hall. Capacity, 600,000 gallons per day, not filtered. Average consumption, 550,000 gallons per day. Consumption per capita, 91 gallons per day. Service metered.								
March 4, '15	50.00	0.02	0.02	0.00	0.00	266.00	Negative	Negative
May 5, '15	53.00	0.02	0.03	0.05	0.00	318.00	Negative	Negative
September 1, '15	51.00	0.01	0.02	0.00	0.00	247.00	Negative	Negative
November 30, '15	56.00	0.01	0.01	0.00	0.00	303.00	Negative	Negative

Water Supply of Gaffney, S. C.

In charge Board of Public Works. Owned by City. Superintendent, L. V. Gaffney. In charge of collection of samples, L. V. Gaffney. Chairman local Board of Health, G. G. Byers.								
Source: Creek, 3 1-4 miles from city, filtered by mechanical filter. Treatment, 1 grain Alum per gallon. Capacity of plant, 1,000,000 gallons per day. Average consumption 100,000 gallons per day. Consumption per capita, 20 gallons per day. Service metered.								
March 14, '15	3.00	0.02	0.02	0.00	0.00	74.00	Negative	Negative
June 2, '15	6.00	0.01	0.02	0.20	0.00	126.00	Negative	Negative
September 4, '15	12.00	0.02	0.04	0.01	0.00	86.00	Negative	Negative
December 10, '15	4.00	0.02	0.04	0.00	0.00	93.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrates as Nitrogen	Nitrites as Nitrogen	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
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Water Supply of Georgetown, S. C.

Black River Water Company. R. J. Clifford, President. In charge of collection of samples, Dr. H. L. Wright. Chairman local Board of Health, Dr. W. M. Gaillard.

Source: Black River, 75 miles from city, by river, 15 miles by air line. Capacity, 1,000,000 gallons per day; filtered by slow sand filter. No treatment. Capacity of plant, 1,000,000 gallons per day. Average consumption, 177,000 gallons per day. Consumption per capita, 75 gallons per day. Service metered.

March 4, '15	7.00	0.01	0.20	0.00	0.00	54.00	Negative	Negative
May 29, '15	7.00	0.02	0.20	0.00	0.00	62.00	Negative	Negative
August 31, '15	6.00	0.02	0.24	0.00	0.00	76.00	Negative	Negative
December 3, '15	8.00	0.01	0.25	0.00	0.00	99.00	Negative	Negative

Water Supply of Greenville, S. C.

The Paris Mountain Water Company. Superintendent, H. W. Perry. In charge of collection of samples, H. W. Perry. Chairman local Board of Health, Dr. Davis Furman.

Source: Streams in Paris Mountain to reservoirs, 8 and 12 miles from city, gravity system. Capacity, 5,000,000 gallons per day, not filtered. Average consumption, 1,200,000 gallons per day. Consumption per capita, 60 gallons per day. Service not metered.

March 10, '15	2.00	0.01	0.02	0.00	0.00	64.00	Negative	Negative
May 29, '15	4.00	0.01	0.03	0.00	0.00	51.00	Negative	Negative
September 28, '15	3.00	0.02	0.03	0.00	0.00	30.00	Negative	Negative
November 31, '15	2.00	0.01	0.01	0.00	0.00	60.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
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Water Supply of Greenwood, S. C.

Greenwood Water & Electric Light Plant. Owned by city. Superintendent, A. J. Sproles. In charge of collection of samples, A. J. Sproles. Chairman local Board of Health, Dr. W. P. Turner.

Source: 4 wells, diameter 8 inches, 300 feet deep, 1 1-2 miles from city. Capacity, 1,200,000 gallons per day; not filtered. Average consumption, 350,000 gallons per day. Consumption per capita, 40 gallons per day. Service metered.

March 10, '15	5.00	0.08	0.05	0.00	0.00	142.00	Negative	Negative
May 31, '15	7.00	0.02	0.03	0.05	0.00	177.00	Negative	Negative
August 30, '15	7.00	00.1	0.03	0.00	0.00	164.00	Negative	Negative
December 7, '15	6.00	0.01	0.01	0.00	0.00	212.00	Negative	Negative

Water Supply of Graniteville, S. C.

Graniteville Manufacturing Company. Owned by city. Superintendent, S. F. Devlin. In charge of collection of samples, S. F. Devlin.

Source: Spring, 1 mile from city; not filtered. Capacity, 40,000 gallons per day. Average consumption, 22,000. Consumption per capita, 20 gallons per day.

March 6, '15	4.00	0.02	0.02	0.00	0.00	22.00	Negative	Negative
May 31, '15	4.00	0.02	0.02	0.00	0.00	20.00	Negative	Negative
August 30, '15	3.00	0.01	0.02	0.00	0.00	56.00	Negative	Negative
December 1, '15	3.00	0.01	0.04	0.00	0.00	48.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Hartsville, S. C.								
In charge Board of Commissioners of Public Works. Owned by city. Superintendent, J. A. Tyner. In charge of collection of samples, J. A. Tyner. Chairman local Board of Health, Maj. J. L. Coker.								
Source: Well, 1-2 mile from city, 3 1-2 inches diameter, 287 feet deep, pumped. Capacity, 196,800 gallons per day; not filtered. Capacity of plant, 196,800 gallons per day. Average consumption, 190,000 gallons per day. Consumption per capita, 60 gallons per day. Service metered.								
March 22, '15	3.00	0.02	0.02	0.00	0.00	24.00	Negative	Negative
May 28, '15	4.00	0.01	0.01	0.00	0.00	43.00	Negative	Negative
September 4, '15	4.00	0.02	0.05	0.00	0.00	20.00	Negative	Negative
December 6, '15	4.00	0.02	0.01	0.00	0.00	38.00	Negative	Negative
Water Supply of Kingstree, S. C.								
Kingstree Water Works. Owned by city. Superintendent, S. C. Anderson. In charge of collection of samples, S. C. Anderson. Chairman local Board of Health, T. McCutchen.								
Source: Well, 6 inches in diameter, 520 feet deep, flows by gravity in city. Capacity, 720,000 gallons per day, not filtered. Average consumption, 60,000 gallons per day. Consumption per capita, 20 gallons per day. Service metered.								
March 30, '15	5.00	0.04	0.02	0.00	0.00	225.00	Negative	Negative
June 2, '15	8.00	0.08	0.02	0.00	0.00	202.00	Negative	Negative
September 16, '15	7.00	0.01	0.04	0.00	0.00	272.00	Negative	Negative
December 15, '15	8.00	0.07	0.02	0.20	0.00	178.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination.
Water Supply of Lancaster, S. C.								
In charge Commissioners of Public Works. Owned by city. Superintendent, R. S. Harper. In charge of collection of samples, Jno. Crawford. Chairman local Board of Health, J. T. Thomoson.								
Source: Two creeks, 1 1-2 miles from city. Capacity, 1,000,000 gallons per day; filtered by mechanical filter. Treatment, 1 grain Alum per gallon. Capacity of plant, 720,000 gallons per day. Average consumption 200,000 gallons per day. Consumption per capita, 20 gallons per day. Service metered.								
March 12, '15	9.00	0.01	0.05	0.00	0.00	70.00	Negative	Negative
June 4, '15	10.00	0.01	0.09	0.00	0.00	114.00	Negative	Negative
September 20, '15	6.00	0.01	0.03	0.00	0.00	55.00	Negative	Negative
December 2, '15	10.00	0.01	0.06	0.00	0.00	93.00	Negative	Negative
Water Supply of Laurens, S. C.								
Municipal Light & Water Plant. Superintendent, J. E. Philpot. In charge of collection of samples, J. E. Philpot. Chairman local Board of Health, Dr. R. E. Hughes.								
Source: Creek, within city limits; filter by mechanical filter. Treatment, 1 grain Alum per gallon. Capacity of plant, 250,000 gallons per day. Average consumption, 250,000 gallons per day. Consumption per capita, 25 gallons per day. Service metered.								
March 10, '15	4.00	0.02	0.03	0.00	0.00	80.00	Negative	Negative
May 29, '15	6.00	0.01	0.01	0.03	0.00	70.00	Negative	Negative
September 8, '15	5.00	0.01	0.03	0.001	0.00	71.00	Negative	Negative
December 6, '15	4.00	0.01	0.03	0.001	0.00	110.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
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Water Supply of McColl, S. C.

City of McColl Water Works. Superintendent, J. H. Dougherty. In charge of collection of samples, L. M. Morrison. Chairman local Board of Health, Dr. D. D. Hamer.
 Source: 2 wells, 6 inches diameter, 100 feet deep, pumped, within city. Capacity, 144,000 gallons per day; not filtered. Capacity of plant, 144,000 gallons per day. Average consumption, 40,000 gallons per day. Consumption per capita, 23 gallons per day. Service metered.

March 5, '15	5.00	0.01	0.01	0.00	0.00	41.00	Negative	Negative
May 28, '15	7.00	0.01	0.02	0.20	0.00	51.00	Negative	Negative
August 27, '15	5.00	0.01	0.02	0.10	0.00	25.00	Negative	Negative
December 14, '15	5.00	0.02	0.02	0.30	0.00	40.00	Negative	Negative

Water Supply of Manning, S. C.

Manning Water Works Department. Owned by city. Superintendent, C. V. Verner. In charge of collection of samples, C. V. Verner.
 Source: Well, 6 inches diameter, depth 402 feet, in city. Capacity, 86,400 gallons per day; not filtered. Capacity of plant 431,500 gallons per day. Average consumption, 400,000 gallons per day. Service not metered.

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination.	Chemical Indications of Contamination
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Water Supply of Marion, S. C.

Carolina Central Electric Co. General Superintendent, F. G. Godfray, Florence, S. C. In charge of collection of samples, I. B. Hughes, local superintendent. Chairman local Board of Health, Dr. E. M. Dibble. Source: Wells, diameter 8 and 6 inches, depth 100 and 150 feet, in city. Capacity 150,000 gallons per day; not filtered. Capacity of plant, 150,000 gallons per day. Average consumption, 75,000 gallons per day. Consumption per capita, 15 gallons per day. Service metered.

March 3, '15	7.00	0.09	0.08	0.00	0.001	133.00	Negative	Negative
June 2, '15	7.00	0.02	0.01	0.00	0.00	177.00	Negative	Negative
August 28, '15	7.00	0.02	0.03	0.00	0.00	150.00	Negative	Negative
December 2, '15	6.00	0.05	0.06	0.00	0.00	182.00	Negative	Negative

Water Supply of Newberry, S. C.

In charge Commissioners of Public Works. Owned by city. Superintendent, H. W. Schumpert. In charge of collection of samples, Dr. F. D. Mower. Chairman local Board of Health, Dr. F. D. Mower.

Source: Wells, 2 and 5 inches diameter, depth 300 feet, pumped by air, in city. Capacity 216,000 gallons per day; not filtered. Capacity of plant, 216,000 gallons per day. Average consumption, 140,000 gallons per day. Consumption per capita, 23 1-2 gallons per day. Service 73% metered. The wells are drilled 17 feet apart and appear to be in same vein of water, as the same amount of water is obtained if one or both wells are pumped.

March 10, '15	25.00	0.01	0.02	0.20	0.00	302.00	Negative	Negative
May 29, '15	28.00	0.01	0.01	0.00	0.00	457.00	Negative	Negative
September 1, '15	28.00	0.02	0.02	0.20	0.00	299.00	Negative	Negative
December 2, '15	30.00	0.01	0.02	0.20	0.00	312.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Orangeburg, S. C.								
Orangeburg Water & Light Plant of City of Orangeburg. Owned by city. Superintendent, J. E. Salley. In charge of collection of samples, J. E. Salley. Chairman local Board of Health, Dr. C. I. Green. Source: Wells, 5 and 8 inches diameter, 200 feet deep, pumped; 2 inches diameter 170 to 194 feet deep flowing, in city. Capacity 330,000 gallons per day; not filtered. Capacity of plant, 330,000 gallons per day. Average consumption, 230,000 gallons per day. Consumption per capita, 33 gallons per day. Service metered.								
March 10, '15	6.00	0.02	0.03	0.00	0.00	146.00	Negative	Negative
May 31, '15	7.00	0.01	0.03	0.00	0.00	203.00	Negative	Negative
August 31, '15	8.00	0.02	0.02	0.00	0.00	160.00	Negative	Negative
December 8, '15	7.00	0.01	0.02	0.00	0.00	196.00	Negative	Negative
Water Supply of Rock Hill, S. C.								
Water & Electric Department, City of Rock Hill. Manager, J. G. Barnwell. In charge of collection of samples, S. T. Frew. Chairman local Board of Health, Dr. J. R. Miller. Source: Catawba River, about 6 miles from city; filtered by mechanical filter. Treatment 3-4 grain Alum per gallon, 1-2 grain Lime per gallon, 0.05 grain Hypochlorite of Lime per gallon. Capacity of plant, 1,000,000 gallons per day. Average consumption, 275,000 gallons per day. Consumption per capita, 37 gallons per day. Service metered.								
March 10, '15	4.00	0.02	0.03	0.00	0.00	74.00	Negative	Negative
June 8, '15	6.00	0.01	0.02	0.10	0.00	34.00	Negative	Negative
September 1, '15	4.00	0.01	0.02	0.00	0.00	84.00	Negative	Negative
December 7, '15	4.00	0.00	0.00	0.00	0.00	44.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
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Water Supply of Spartanburg, S. C.

Spartanburg Water Works. Owned by city. Superintendent, S. A. Bush. In charge of collection of samples, M. M. Boyd. Chairman local Board of Health, Dr. J. W. Allen.
 Source: Chinquapen Creek and Sholly Creek, 1-2 mile and 2 miles from city. Capacity, 2,000,000 gallons per day; filtered by mechanical filter. Treatment, 0.4 grain per 1,000 gallons. Capacity of plant, 2,000,000 gallons per day. Average consumption, 1,250,000 gallons per day. Consumption per capita, 50 gallons per day. Service 42% metered.

March 10, '15	3.00	0.02	0.03	0.00	0.00	53.00	Negative	Negative
June 8, '15	4.00	0.02	0.04	0.10	0.00	27.00	Negative	Negative
September 21, '15	3.00	0.01	0.03	0.10	0.00	63.00	Negative	Negative
December 4, '15	2.00	0.01	0.02	0.00	0.00	56.00	Negative	Negative

Water Supply of Sumter, S. C.

City Water Works. Owned by city. Superintendent, W. W. McKagan. In charge of collection of samples, W. W. McKagan. Chairman local Board of Health, J. A. McKnight.
 Source: 15 wells, 6 inches diameter, 50 to 430 feet deep, pumped; distance from city, 1 mile. Capacity, 1,800,000 gallons per day; not filtered. Capacity of plant, electric, 720,000 gallons per day; steam, 1,080,000 gallons per day. Average consumption, 400,000 gallons per day. Consumption per capita, 35 gallons per day. Service 80% metered.

March 10, '15	7.00	0.04	0.03	0.05	0.00	28.00	Negative	Negative
June 5, '15	9.00	0.09	0.01	0.40	0.05	55.00	Negative	Negative
August 28, '15	8.00	0.12	0.04	0.30	0.05	62.00	Negative	Negative
December 11, '15	8.00	0.10	0.12	0.50	0.00	60.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Timmons ville, S. C.								
Board Public Works. Superintendent, E. J. Lynch. In charge of collection of samples, E. J. Lynch.								
Chairman of local Board of Health, Dr. C. A. Foster.								
Source: Well, 8 inches diameter, depth 526 feet, on outer edge of town. Capacity, 300,000 gallons per day; not filtered. Capacity of plant, 150,000 gallons per day. Average consumption, 20,000 gallons per day. Consumption per capita, 20 gallons per day. Service metered.								
March 10, '15	5.00	0.02	0.02	0.00	0.00	60.00	Negative	Negative
June 3, '15	5.00	0.01	0.03	0.00	0.00	70.00	Negative	Negative
August 30, '15	5.00	0.01	0.02	0.00	0.00	90.00	Negative	Negative
December 7, '15	5.00	0.02	0.04	0.00	0.00	89.00	Negative	Negative
Water Supply of Union, S. C.								
Municipal Electric Light & Water Works. Superintendent, R. A. Easterling. In charge of collection of samples, R. A. Easterling. Chairman local Board of Health, S. G. Sarraatt.								
Source: Creek, 2 miles from city. Capacity, 15,000,000 gallons per day; filtered by mechanical filter. Treatment, Alum. Capacity of plant, 500,000 gallons per day. Average consumption, 400,000 gallons per day. Consumption per capita, 35 gallons per day. Service metered.								
March 18, '15	4.00	0.03	0.03	0.00	0.00	50.00	Negative	Negative
May 31, '15	6.00	0.02	0.03	0.00	0.00	70.00	Negative	Negative
September 6, '15	5.00	0.02	0.06	0.01	0.00	124.00	Negative	Negative
December 4, '15	4.00	0.01	0.02	0.01	0.00	76.00	Negative	Negative

RESULTS IN PARTS PER MILLION (Continued).

Sample Drawn	Chlorine	Free Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Total Solids	Bacterial Indications of Contamination	Chemical Indications of Contamination
Water Supply of Yorkville, S. C. Yorkville Water Plant. Owned by city. Superintendent, J. O. Wray. In charge of collection of samples, J. O. Wray. Chairman local Board of Health, Dr. M. J. Walker. Source: Branch, 3-4 miles from city. Capacity, 800,000 gallons per day; filtered by mechanical filter. Treatment, about 3-4 grain Alum per gallon. Capacity of plant, 300,000 gallons per day. Average consumption, 180,000 gallons per day. Consumption per capita, 35 gallons per day. Service metered.								
March 10, '15	4.00	0.03	0.03	0.00	0.00	58.00	Negative	Negative
June 7, '15	6.00	0.01	0.02	0.10	0.00	84.00	Negative	Negative
September 10, '15	4.00	0.01	0.03	0.10	0.00	89.00	Negative	Negative
December 4, '15	4.00	0.01	0.02	0.10	0.00	135.00	Negative	Negative

FINANCIAL STATEMENT.

The following is a correct statement of the expenditures of the State Board of Health for the fiscal year 1915, showing to whom paid and for what purpose. All claims against the Board are itemized and rendered in duplicate, the original being attached to warrant of Comptroller-General and forwarded to his office for payment—the duplicate being filed in this office.,

EXPENDITURES.

CONTINGENT.

FIRST QUARTER—JANUARY, FEBRUARY, MARCH, 1915.

		Voucher No.		
March	1.	1.	To Jas. A. Hayne, M. D., incidental expenses, January and February	\$ 93.21
March	1.	2	To Mrs. I. L. Remley, stenographer, services rendered, half-time, January and February	50.00
March	1.	3.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	31.71
March	1.	4.	To McGregor Drug Store, anti-meningitis serum	10.00
March	1.	5.	To Southern Aseptic Laboratories, absorbent cotton	7.77
March	1.	6.	To Palmetto Ice Co., ice tickets	10.50
March	1.	7.	To Powell Fuel Co., coal and wood	10.75
March	1.	8.	To Columbia Ry., Gas & Electric Co., gas consumed, January and February	48.36

March 1.	9.	To Central Drug Co., laboratory supplies	10.00
March 1.	10.	To J. T. McCaw, printing infectious disease blanks	8.75
March 1.	11.	To T. R. Howle, M. D., Andrews, S. C., services as special agent in suppressing smallpox	30.00
March 1.	12.	To A. S. Todd, M. D., Manning, S. C., services as special agent in suppressing smallpox	20.00
March 1.	13.	To West Disinfecting Co., Atlanta, Ga., health cups	16.50
March 1.	14.	To West Disinfecting Co., Atlanta, Ga., sweeping compound and liquid soap	18.00
March 1.	15.	To Western Union Telegraph Co., official telegrams	13.51
March 1.	16.	To The Palmetto National Bank, office rent, January, February, March	120.00
March 17.	17.	To Geo. H. Huggins, P. M., postage stamps	25.00
March 24.	18.	To Andrew Bolton, services rendered in replacing ceiling in laboratory	6.00
March 24.	19.	To Frank Lander, M. D., Williamston, S. C., inspection of sanitary conditions at Chad-dar, S. C.	10.00
March 27.	20.	To J. T. McCaw, printing warrant books and bulletins	95.75
March 31.	21.	To Jas. A. Hayne, M. D., incidental expenses, March	13.21
March 31.	22.	To Miss Nell Davis, stenographer, services rendered, Mch.	50.00
March 31.	23.	To Central Drug Co., laboratory supplies	14.40

March 31.	24.	To Columbia Lumber & Mnfg. Co., lumber for repairing ceiling at laboratory	10.85
March 31.	25.	To Palmetto Ice Co., ice tickets	7.00
March 31.	26.	To Columbia Ry. Gas & Electric Co., gas consumed, Mar.	21.00
March 31.	27.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	17.50
March 31.	28.	To The Palmetto National Bank, office rent, April	40.00
March 31.	29.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	163.98
March 31.	30.	To Powell Fuel Co., coal	6.50
March 31.	31.	To H. M. Alexander & Co., Marietta, Pa., diphtheria antitoxin distributed, January, February, March	1040.30
March 31.	32.	To Western Union Telegraph Co., official telegrams	1.18
March 31.	33.	To Capital City Steam Laundry & Dye Works, towel service, January, February, March	3.00
March 31.	34.	To Southern Express Co., express on literature from Chicago, Ill.	12.87
March 31.	35.	To Bastian Bros. Co., Rochester, N. Y., buttons, special design, Clean-Up-Day	21.00
March 31.	36.	To The R. L. Bryan Co., office supplies	6.25
March 31.	37.	To G. B. Degano & Co., Sumter, S. C., two composition floors laid in the laboratory	136.00
March 31.	38.	To J. T. McCaw, printing	16.10
March 31.	39.	To H. K. Mulford Co., Philadelphia, Pa., antimeningitis serum	36.31

March 31.	40.	To H. K. Mulford Co., Philadelphia, Pa., tetanus antitoxin	48.79
March 31.	41.	To Wm. Jefferson, ceiling and kalsomining rooms at laboratory	10.75
April 20.	42.	To H. M. Alexander & Co., Marietta, Pa., vaccine virus, January, February, March	527.74
April 20.	43.	To H. K. Mulford Co., Philadelphia, Pa., vaccine virus, January, February, March	80.76
April 20.	44.	To National Vaccine & Antitoxin Inst. Washington, D. C., vaccine virus, January, February, March	486.46
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			\$ 3,407.76
Appropriation			\$20,000.00
Expenditures, 1st Quarter			3,407.76
			<hr/>
Balance			\$16,592.24

CONTINGENT.

SECOND QUARTER—APRIL, MAY, JUNE.

		Amt. Brought Forward 1st Quarter	\$ 3,407.76
		Voucher No.	
1915.			
April 24.	45.	To W. M. Jefferson, painting partition at laboratory	7.00
April 30.	46.	To Lederle Antitoxin Laboratories, New York, N. Y., laboratory supplies	138.51
April 30.	47.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	84.92

April 30.	48.	To Columbia Lumber & Mnfg. Co., lumber for repairs at laboratory	6.11
April 30.	49.	To Columbia Paper Co., twine and wrapping paper	5.60
April 30.	50.	To E. H. Sparkman, M. D., Charleston, S. C., services as special agent in suppressing smallpox	20.00
April 30.	51.	To T. B. Graham, electric lamp	2.25
April 30.	52.	To Miss Nelle Davis, stenographer services rendered, April	50.00
April 30.	53.	To F. A. Coward, M. D., expenses to meeting of County Medical Societies	17.60
April 30.	54.	To The State Co., report blanks, clasp envelopes.....	13.60
April 30.	55.	To Jas. A. Hayne, M. D., incidental expenses, April	48.71
April 30.	56.	To H. M. Alexander & Co., Marietta, Pa., diphtheria anti-toxin distributed, April	312.40
April 30.	57.	To D. A. Coleman, M. D., Black stock, S. C., services as special agent in suppressing smallpox	25.00
April 30.	58.	To Columbia Ry. Gas & Electric Co., gas consumed, April	23.40
April 30.	59.	To G. M. Carpenter, office supplies	2.65
April 30.	60.	To The Waverly Drug Co., rubber gloves	2.25
April 30.	61.	To Palmetto Ice Co., ice tickets	7.00
April 30.	62.	To Powell Fuel Co., coal	3.25
April 30.	63.	To J. M. VanMetre, office table	7.50
April 30.	64.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	25.75
May 1.	65.	To The Palmetto National Bank, rent of offices, May.....	40.00

May	4.	66. To American Medical Association, Chicago, Ill., bulletins on contagious diseases	169.00
May	6.	67. To The University Press, E. L. Green, Mgr., patient records	5.00
May	6.	68. To Central Drug Co., laboratory supplies	13.00
May	6.	69. To Western Union Telegraph Co., official telegrams	3.91
May	6.	70. To The R. L. Bryan Co., stamped envelopes for laboratory	23.00
May	6.	71. To The State Co., medical dictionary for laboratory	1.10
May	11.	72. To R. B. Gantt, M. D., Charleston, S. C., services as special agent in suppressing smallpox	71.95
May	12.	73. To C. A. McLurkin, M. D., Chester, S. C., services as special agent in suppressing smallpox	30.00
May	15.	74. To Geo. A. Hennies, M. D., Chester, S. C., services as special agent in suppressing smallpox	40.00
May	15.	75. To Hubert Claytor, M. D., Hopkins, S. C., services as special agent in suppressing smallpox	20.00
May	15.	76. To L. A. Hartzog, M. D., Olar, S. C., services as special agent in suppressing smallpox	25.00
May	15.	77. To Improved Mailing Case Co. New York, N. Y., mailing cases	27.50
May	17.	78. To F. A. Coward, M. D., expenses to meeting of State Medical Association at Greenwood	9.25

May	21.	79. To J. R. McCormack, M. D., Olar, S. C., services as spe- cial agent in suppressing smallpox	20.00
May	29.	80. To E. K. Plumly, Philadel- phia, Pa., laboratory sup- plies	79.50
May	29.	81. To Miss Nelle Davis, stenog- rapher, services rendered, May	50.00
May	29.	82. To Columbia Ry. Gas & Elec- tric Co., gas consumed, May	13.44
May	31.	83. To Jas. A. Hayne, M. D., inci- dental expenses, May	35.92
May	31.	84. To A. H. Hayden, M. D., Co- lumbia, S. C., expenses as special agent in suppressing smallpox in Georgetown Co.	55.55
May	31.	85. To A. H. Hayden, M. D., Co- lumbia, S. C., services as special agent in suppressing smallpox at Waverly Mills and vicinity, Georgetown Co.	70.00
May	31.	86. To Myers Mnfg. Co., Camden, N. J., patent tin boxes	24.00
May	31.	87. To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	9.06
May	31.	88. To Jas. R. Cain, Bacteriologist, expenses to meeting of the Southeastern Sanitary Asso- tion, Asheville, N. C.	18.20
May	31.	89. To F. A. Coward, M. D., ex- penses to meeting of County Medical Societies	29.75
May	31.	90. To Palmetto Ice Co., ice tickets	14.75
May	31.	91. To Webb's Art Store, glass and picture moulding (Health Exhibit)	2.65
May	31.	92. To The Palmetto National Bank, rent of offices, June.....	40.00

May	31.	93.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	22.01
May	31.	94.	To The R. L. Bryan Co., office supplies	1.25
June	3.	95.	To Union Paper Co., New York, N. Y., mailing cases.....	37.60
June	3.	96.	To Central Drug Co., laboratory supplies	13.65
June	3.	97.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	2.26
June	3.	98.	To Western Union Telegraph Co., official telegrams	8.29
June	8.	99.	To Columbia Seal & Stamp Co., cushion stamps, etc.....	1.35
June	8.	100.	To Perry-Mann Electric Co., candle power lamps for laboratory	2.40
June	15.	101.	To Lorick & Lowrance, supplies used in repairing laboratory rooms	14.20
June	15.	102.	To S. D. Doar, M. D., McClellanville, S. C., services as special agent in suppressing smallpox	20.00
June	30.	103.	To Miss Nelle Davis, stenographer, services rendered	50.00
June	30.	104.	To Geo. H. Huggins, P. M., postage stamps	25.00
June	30.	105.	To H. M. Alexander & Co., Marietta, Pa., diphtheria antitoxin distributed, May	180.75
June	30.	106.	To Columbia Ry. Gas & Electric Co., gas consumed, June	14.76
June	30.	107.	To Palmetto Ice Co., ice tickets	7.00
June	30.	108.	To F. A. Coward, M. D., expenses to meeting of County Medical Societies	14.60
June	30.	109.	To Columbia Paper Co., twine	1.10

June	30.	110.	To Capital City Steam Laundry, towel service, April, May, June	3.00
June	30.	111.	To Jas. A. Hayne, M. D., incidental expenses, June	43.93
June	30.	112.	To Henderson-Suydam Hdw. Co., aluminum pot	2.50
July	1.	113.	To The Palmetto National Bank, rent of offices, July	40.00
June	30.	114.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	13.50
July	12.	115.	To H. M. Alexander & Co., Marietta, Pa., diphtheria anti-toxin distributed, June	173.90
July	12.	116.	To H. M. Alexander & Co., Marietta, Pa., vaccine virus, 2nd Quarter	459.23
July	12.	117.	To Geo. H. Huggins, P. M., postage stamps	25.00
July	12.	118.	To National Vaccine & Antitoxin Institute, Washington, D. C., vaccine virus, 2nd Quarter	573.30
July	12.	119.	To H. K. Mulford Co., Philadelphia, Pa., vaccine virus, 2nd Quarter	189.12
July	12.	120.	To Western Union Telegraph Co., official telegrams	4.65
				<hr/>
				\$ 7,097.14
Appropriation				\$20,000.00
Expenditures 1st Quar. \$3,407.76				
Expenditures 2nd Quar. 3,689.38				
				<hr/>
				\$ 7,097.14
				<hr/>
Balance				\$12,902.86

CONTINGENT.

THIRD QUARTER—JULY, AUGUST, SEPTEMBER.
1915.

Amt. Brought Forward, 1st Quarter	\$ 3,407.76
Amt. Brought Forward, 2nd Quarter	3,689.38
	<hr/>
	\$7,097.14

1915

Voucher
No.

July	15.	121.	To J. T. McCaw, office supplies	13.10
July	17.	122.	To Perry-Mann Electric Co., new blades for electric fan at laboratory	4.75
July	17.	123.	To H. J. Bassler Co., repairing sterilizer at laboratory.....	4.75
July	17.	124.	To Southern Aseptic Laboratories, absorbent cotton	3.36
July	17.	125.	To Central Drug Co., laboratory supplies	15.10
July	17.	126.	To The R. L. Bryan Co., stamped envelopes for Lab.....	23.00
July	17.	127.	To S. D. Doar, M. D., McClellanville, S. C., services as special agent in suppressing smallpox	15.00
July	17.	128.	To Sharp & Dohme, New York, N. Y., capsules, Beta Naphthol	24.30
July	17.	129.	To Underwood Typewriter Co., Charlotte, N. C., Underwood Typewriter for laboratory.....	68.03
July	21.	130.	To Union Paper Co., New York, N. Y., mailing cases.....	4.00
July	21.	131.	To Perry-Mann Electric Co., installing cord and attaching plug on electric fan at Lab.....	1.50

July	27.	132.	To Lederle Antitoxin Laboratories, New York, N. Y., vials and plugs	132.08
July	27.	133.	To Myers Mnfg. Co., Camden, N. J., patent tin boxes	5.77
July	27.	134.	To Geo. H. Huggins, P. M., postage stamps	25.00
July	31.	135.	To Miss Nelle Davis, stenographer, services rendered	50.00
July	31.	136.	To L. A. Riser, M. D., Asst. State Bd. Lab., services rendered (half month)	50.00
July	31.	137.	To Jas. A. Hayne, M. D., incidental expenses	45.40
July	31.	138.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	31.07
July	31.	139.	To Steele Glass Co., Philadelphia, Pa., ampuls	83.70
July	31.	140.	To The R. L. Bryan Co., letter-heads for laboratory	3.25
July	31.	141.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	14.45
July	31.	142.	To The R. L. Bryan Co., stamped envelopes for Lab.	23.00
July	31.	143.	To Columbia Ry. Gas & Electric Co., gas consumed, July	16.08
July	31.	144.	To Palmetto Ice Co., ice tickets	7.00
July	31.	145.	To Schieffelin & Co., New York, N. Y., culture media with swabs	3.73
July	31.	146.	To Western Union Telegraph Co., official telegrams	7.60
Aug.	2.	147.	To Palmetto National Bank, rent of offices, August	40.00
Aug.	6.	148.	To Central Drug Co., laboratory supplies	19.70
Aug.	6.	149.	To Columbia Paper Co., wrapping paper and twine	2.58

Aug.	6.	150.	To The University Press, printing for Lab.	46.35
Aug.	7.	151.	To H. M. Alexander & Co., Marietta, Pa., diphtheria an- titoxin distributed, July.....	240.55
Aug.	10.	152.	To Geo. H. Huggins, P. M., postage stamps	25.00
Aug.	10.	153.	To Schieffelin & Co., New York, N. Y., culture media with swabs	11.67
Aug.	13.	154.	To J. T. Howell, M. D., Agt. for State Bd. of Health in Community Work, services rendered, July 12 to 31 incl.	90.00
Aug.	13.	155.	To J. T. Howell, M. D., Agt. for State Bd. of Health in Community Work, traveling expenses	74.84
Aug.	16.	156.	To Geo. H. Huggins, P. M., postage stamps	25.00
Aug.	31.	157.	To Miss Nelle Davis, stenog- rapher, services rendered.....	50.00
Aug.	31.	158.	To L. A. Riser, M. D., Asst. State Bd. Lab., services ren- dered	100.00
Sept.	1.	159.	To Southern RR. Co., mileage book, 1000 miles	20.00
Sept.	1.	160.	To C. M. Oliver, Asst. (Com- munity Work), services ren- dered	50.00
Sept.	1.	161.	To M. S. Brohun, Asst. (Com- munity Work), services ren- dered	33.04
Sept.	1.	162.	To J. R. Webb, Asst. (Com- munity Work), services ren- dered	20.04
Sept.	1.	163.	To J. T. Howell, M. D., Agt. for State Bd. of Health in Community Work, services rendered	150.00

Sept.	1.	164.	To J. T. Howell, M. D., Agt, for State Bd. of Health in Community Work, traveling expenses	77.32
Sept.	9.	165.	To G. M. Carpenter, station- ery, office supplies, etc.	18.95
Sept.	9.	166.	To Central Drug Co., labora- tory supplies	13.05
Sept.	9.	167.	To Palmetto Ice Co., ice tickets	10.50
Sept.	9.	168.	To The State Co., binding books, sanitary survey	10.00
Sept.	9.	169.	To Columbia Ry. Gas & Elec- tric Co., gas consumed, Aug.	15.00
Sept.	9.	170.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	15.30
Sept.	9.	171.	To Southern Aseptic Labora- tories, absorbent cotton	2.72
Sept.	9.	172.	To Columbia Paper Co., twine	1.05
Sept.	9.	173.	To Palmetto National Bank, rent of offices, September.....	40.00
Sept.	9.	174.	To Schieffelin & Co., New York, N. Y., culture media.....	1.87
Sept.	9.	175.	To Crown Surgical Instru- ment Co., Vaughns Emer- gency Case	10.22
Sept.	9.	176.	Ta Steele Glass Co., Philadel- phia, Pa., ampuls	153.00
Sept.	24.	177.	To Gulf & Atlantic Insurance Co., Bond, State Health Of- ficer	7.00
Sept.	10.	178.	To Jas. A. Hayne, M. D., inci- dental expenses	46.32
Sept.	16.	179.	To Southern Express Co., charges on various shipments	5.23
Sept.	16.	180.	To Perry-Mann Electric Co., 25-40 watt 125 volt mazda lamps	6.75
Sept.	16.	181.	To American Medical Associa- tion, pamphlets	10.00

Sept.	16.	182.	To H. M. Alexander & Co., Marietta, Pa., diphtheria an- titoxin distributed, August.....	420.90
Sept.	17.	183.	To Geo. H. Huggins, P. M., postage stamps	25.00
Sept.	23.	184.	To H. S. Mustard, M. D., Charleston, S. C., services as special agent in suppressing smallpox	15.00
Sept.	30.	185.	To Jas. A. Hayne, M. D., inci- dental expenses	30.25
Sept.	30.	186.	To Miss Nelle Davis, stenogra- pher, services rendered.....	50.00
Sept.	30.	187.	To L. A. Riser, M. D., Asst. State Bd. Lab., services ren- dered	100.00
Sept.	30.	188.	To The R. L. Bryan Co., stamped envelopes for Lab.	23.00
Sept.	30.	189.	To F. A. Coward, M. D., ex- penses to County Societies.....	16.45
Sept.	30.	190.	To J. B. Elliott, M. D., Ft. Mill, S. C., services rendered as special agent in suppress- ing smallpox	5.00
Sept.	30.	191.	To Steele Glass Co., Philadel- phia, Pa., ampuls	64.50
Sept.	30.	192.	To Pierre M. Foltz, Washing- ton, D. C., lantern slides	27.90
Sept.	30.	193.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	26.37
Sept.	30.	194.	To Palmetto National Bank, rent of offices, October	40.00
Sept.	30.	195.	To Palmetto Ice Co., ice tickets	14.00
Sept.	30.	196.	To Columbia Ry. Gas & Elec- tric Co., Gas consumed, Sept.	12.48
Sept.	30.	197.	To Capital City Steam Laun- dry & Dye Works, towel ser- vice (3 months)	3.00
Sept.	30.	198.	C. M. Oliver, Asst. (Commun- ity Work) services rendered	30.00

Sept.	30.	199.	To M. S. Brohun, Asst. (Community Work) services rendered	25.00
Sept.	30.	200.	To S. C. Byrd, Asst. (Community Work) services rendered	25.00
Sept.	30.	201.	To Dock Hatchell Asst. (Community Work) services rendered	20.00
Sept.	30.	202.	To J. T. Howell, M. D., Agt. for State Bd. of Health in Community Work, services rendered	150.00
Sept.	30.	203.	To J. T. Howell, M. D., Agt. for State Bd. of Health in Community Work, traveling expenses	75.00
Sept.	30.	204.	To Southern Express Co., charges on various shipments	2.42
Sept.	30.	205.	To Western Union Telegraph Co., official telegrams	1.97
Oct.	1.	206.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	19.30
Oct.	1.	207.	To Columbia Lumber & Mnfg. Co., lumber for repairs at laboratory	12.29
Oct.	1.	208.	To Geo. H. Huggins, P. M., postage stamps	25.00
Oct.	1.	209.	To Central Drug Co., laboratory supplies	9.05
Oct.	1.	210.	To J. R. Webb, Asst. (Community Work) services rendered	50.00
Oct.	1.	211.	To F. A. Coward, M. D., expenses to Rochester, N. Y., to attend meeting of A. P. H. Assn.	112.95

Oct.	1.	212.	To H. M. Alexander & Co., Marietta, Pa., vaccine virus, 3rd Quarter	101.20
Oct.	1.	213.	To National Vaccine & Anti- toxin Institute, Washington, D. C., vaccine virus, 3rd Quarter	254.61
Oct.	1.	214.	To H. K. Mulford Co., Phila- delphia, Pa., vaccine virus, 3rd Quarter	81.25
Oct.	1.	215.	To Schieffelin & Co., New York, N. Y., vaccine virus, 3rd Quarter	130.00
Oct.	11.	216.	To S. T. Carter, State Treas- urer, Ins. on Policies No. 515 and No. 516	17.00
Oct.	14.	217.	To H. M. Alexander & Co., Marietta, Pa., diphtheria an- titoxin distributed, Septem- ber	1953.65
				<hr/>
				\$13,184.75
Appropriation				\$20,000.00
Expenditures 1st Quar. \$3,407.76				
Expenditures 2nd Quar. 3,689.38				
Expenditures 3rd Quar. 6,087.61				
				<hr/>
				\$13,184.75
Balance				\$ 6,815.25
				<hr/>

CONTINGENT.

FOURTH QUARTER—OCTOBER, NOVEMBER, DECEMBER.
1915.

Amount Brought Forward, 1st Quarter	\$ 3,407.76
Amount Brought Forward, 2nd Quarter	3,689.38
Amount Brought Forward, 3rd Quarter	6,087.61
<hr/>	
\$13,184.75	

1915.

		Voucher No.		
Oct.	22.	218.	To G. M. Carpenter, office supplies	2.95
Oct.	22.	219.	To West Disinfecting Co., drinking cups	13.50
Oct.	22.	220.	Perry - Mann Electric Co., electric fan	20.00
Oct.	22.	221.	To L. A. Riser, M. D., ex- penses to Bamberg to make investigation of smallpox epidemic	5.95
Oct.	30.	222.	To Miss Nelle Davis stenogra- pher, services rendered.....	50.00
Oct.	30.	223.	To L. A. Riser, M. D., Asst. at laboratory, services ren- dered	100.00
Oct.	30.	224.	To Jas. A. Hayne, M. D., inci- dental expenses, office and laboratory	54.10
Oct.	30.	225.	To F. A. Coward, M. D., ex- penses to Hartsville and Ab- beville (epidemic investi- gations)	16.00
Oct.	30.	226.	To Columbia Ry. Gas & Elec- tric Co., gas consumed, Oct.	11.38
Oct.	30.	227.	To Southern Bell Telephone & Telegraph Co., toll mes- sages and phone service, of- fice and laboratory	17.60
Oct.	30.	228.	To Palmetto Ice Co. ice tickets	14.00
Oct.	30.	229.	To Murray Drug Co., corks.....	2.50
Oct.	30.	230.	To Addressograph Co., Chica- go, Ill., plate addresses	2.99
Oct.	30.	231.	To Western Union Telegraph Co., official telegrams	4.44
Oct.	30.	232.	To G. M. Carpenter, office supplies	1.30
Oct.	30.	233.	To Southern Express Co., charges on various shipments	1.09

Oct.	30.	234.	To Central Drug Co., laboratory supplies	10.25
Oct.	30.	235.	To B. D. Hatchell, Asst. in Community Work; services rendered	50.00
Oct.	30.	236.	To J. R. Webb, Asst. in Community Work, services rendered	50.00
Oct.	30.	237.	To S. O. Byrd, Asst. in Community Work, services rendered	38.21
Oct.	30.	238.	To J. T. Howell, M. D., State Board of Health, in Community Work, services rendered	150.00
Oct.	30.	239.	To Geo. H. Huggins, P. M., postage stamps	25.00
Oct.	30.	240.	To Arthur H. Thomas Co., Philadelphia, Pa., laboratory supplies	21.49
Nov.	1.	241.	To Palmetto National Bank, rent of offices, November	40.00
Nov.	1.	242.	To W. D. Grigsby, M. D., Blaney, S. C., services as special agent in suppressing smallpox	5.00
Nov.	1.	243.	To J. T. Howell, M. D., for State Board of Health in Community Work, traveling expenses	75.12
Nov.	13.	244.	To H. M. Alexander & Co., Marietta, Pa., diphtheria antitoxin distributed, October	1322.35
Nov.	15.	245.	To F. A. Coward, M. D., expenses to meeting of Southern Medical Association, Dallas, Texas	65.75
Nov.	27.	246.	To J. T. McCaw, office supplies	3.30
Nov.	30.	247.	To Miss Nelle Davis, stenographer, services rendered	50.00
Nov.	30.	248.	To Jas. A. Hayne, M. D., incidental expenses	38.36

Nov.	30.	249.	To F. A. Coward, M. D., expenses to Gaffney to attend meeting of Medical Association, and expenses to Harts-ville to deliver lecture at Coker College	16.05
Nov.	30.	250.	To G. M. Carpenter, carbon paper	3.00
Nov.	30.	251.	To The University Press, printing labels and blanks.....	19.50
Nov.	30.	252.	To Geo. H. Huggins, P. M., postage stamps	25.00
Nov.	30.	253.	To Palmetto Ice Co., ice tickets	14.00
Nov.	30.	254.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory	15.75
Nov.	30.	255.	To Columbia Ry. Gas & Elec-tric Co., gas consumed, No- vember	12.60
Nov.	30.	256.	To The R. L. Bryan Co., stamped envelopes for Lab.....	23.00
Nov.	30.	257.	To H. J. Bassler Co., repair- ing sterilizer gauge	3.00
Nov.	30.	258.	To Waverly Drug Co., rubber gloves	2.25
Nov.	30.	259.	To Pierre M. Foltz, Washing- ton, D. C., lantern slides	29.98
Nov.	30.	260.	To Central Drug Co., labora- tory supplies	17.15
Nov.	30.	262.	To Columbia Lumber & Mnfg. Co., ash table top	20.00
Nov.	30.	262.	To Southern Aseptic Labora- tories, absorbent cotton	3.06
Nov.	30.	263.	To J. T. Howell, M. D., Agt. State Board of Health in Community Work, services rendered (Nov. 1-15)	75.00

Nov.	30.	264.	To J. T. Howell, M. D., Agt. State Board of Health in Community Work, traveling expenses	42.33
Nov.	30.	265.	To J. R. Webb, Asst. in Community Work, services rendered (Nov. 1-15)	25.00
Nov.	30.	266.	To American Medical Association, Chicago, Ill., bulletins.....	10.00
Dec.	1.	267.	To Palmetto National Bank, rent of offices, December	40.00
Dec.	9.	268.	To J. T. McCaw, office supplies	30.10
Dec.	13.	269.	To H. M. Alexander & Co., Marietta, Pa., diphtheria anti-toxin distributed, November	1023.95
Dec.	23.	270.	To Miss Nelle Davis, stenographer, services rendered	50.00
Dec.	23.	271.	To Geo. H. Huggins, P. M., postage stamps	25.00
Dec.	31.	272.	To Jas. A. Hayne, M. D., incidental expenses	48.42
Dec.	31.	273.	To G. M. Carpenter, office supplies	1.80
Dec.	31.	274.	To DeLay Roofing & Cornice Co., repairing copper tank.....	3.25
Dec.	31.	275.	To R. E. Mathias, M. D., Irmo, S. C., services as special agent in suppressing smallpox	17.50
Dec.	31.	276.	To R. G. Hamilton, M. D., Rockton, S. C., services as special agent in suppressing smallpox	15.00
Dec.	31.	277.	To J. F. Kinney, M. D., Bennettsville, S. C., services rendered in the diagnosis and precautions against spread of scarlet fever	15.00
Dec.	31.	278.	To Western Union Telegraph Co., official telegrams	5.17

Dec.	31.	279.	To Columbia Ry. Gas & Electric Co., gas consumed, December	13.32
Dec.	31.	280.	To Palmetto Ice Co. ice tickets	7.00
Dec.	31.	281.	To Capital City Laundry & Dye Works, towel service (Oct., Nov., Dec.)	3.00
1916.				
Jan.	1.	282.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service, office and laboratory (Dec.).....	22.00
Jan.	1.	283.	To Central Drug Co., laboratory supplies	7.75
Jan.	1.	284.	To J. L. Donnon, M. D., Ware Shoals, S. C., services as special agent in suppressing smallpox	25.00
Jan.	1.	285.	To Lorick & Lowrance, cement, screws, etc.	3.30
Jan.	13.	286.	To H. M. Alexander & Co., Marietta, Pa., vaccine virus (Fourth Quarter)	375.31
Jan.	13.	287.	To Schieffelin & Co., New York, N. Y., vaccine virus (Fourth Quarter	325.05
Jan.	14.	288.	To The R. L. Bryan Co., stamped envelops	23.00
Jan.	17.	289.	To H. K. Mulford Co., Philadelphia, Pa., vaccine virus (Fourth Quarter)	292.24
Jan.	18.	290.	To H. M. Alexander & Co., Marietta, Pa., diphtheria antitoxin distributed, Dec.....	1530.70
Additional to stub Voucher No. 83, ice				150
				<hr/>
				\$19,708.41
Balance				291.59
				<hr/>
				\$20,000.00

Expenditures 1st Quarter	\$ 3,407.76	
Expenditures 2nd Quarter	3,689.38	
Expenditures 3rd Quarter	6,087.61	
Expenditures 4th Quarter	6,523.66	
		<hr/>
		\$19,708.41
Balance		291.59
		<hr/>
		\$20,000.00
Appropriation for Contingent Fund, \$20,000.00.		
Outstanding bills	\$1,050.34	
Balance		291.59
		<hr/>
		\$758.75
Belated diphtheria antitoxin requisitions dated 1915, received since payment of De- cember statement	\$758.75	

STATE BOARD OF HEALTH.

1915.

	Voucher No.		
Feb. 12.	1.	To W. W. Dodson, Ph. G., Special meeting	\$ 40.60
Feb. 12.	2.	To Wm. Egleston, M. D., spec- ial meeting	42.60
Feb. 12.	3.	To D. B. Frontis, M. D., spe- cial meeting	16.00
Feb. 12.	4.	To C. C. Gambrell, M. D., spe- cial meeting	33.40
Feb. 12.	5.	To Robt. Wilson, Jr., M. D., special meeting	34.75
March 12.	6.	To W. J. Burdell, M. D., spe- cial meeting	18.60
March 12.	7.	To W. W. Dodson, Ph. G., spe- cial meeting	40.60
March 12.	8.	To Wm. Egleston, M. D., spe- cial meeting	33.40
March 12.	9.	To D. B. Frontis, M. D., spe- cial meeting	20.00

March 12.	10.	To C. C. Gambrell, M. D., special meeting	33.40
March 12.	11.	To E. A. Hines, M. D. special meeting	42.60
March 12.	12.	To W. M. Lester, M. D., special meeting	4.00
March 12.	13.	To Robt. Wilson, Jr., special meeting	38.00
March 29.	14.	To Lea & Febiger, books	5.50
April 2.	15.	To Jas. R. Cain, Journal of the Amer. Society	10.00
April 2.	16.	To Lea & Febiger, Amer. Jour. of the Med. Science	5.00
April 2.	17.	To Comstock Pub. Co., book.....	2.20
April 24.	18.	To W. J. Burdell, M. D., special meeting	39.60
April 24.	19.	To W. W. Dodson, Ph. G., special meeting	24.00
April 24.	20.	To Wm. Egleston, M. D., annual meeting	51.30
April 24.	21.	To C. C. Gambrell, M. D., annual meeting	15.60
April 24.	22.	To E. A. Hines, M. D., annual meeting	26.00
April 24.	23.	To W. M. Lester, M. D., annual meeting	25.00
April 24.	24.	To Robt. Wilson, Jr., M. D., annual meeting	55.00
April 24.	25.	To Amer. Med. Assn. Jour. A. M. A.	3.75
May 31.	26.	To Wm. Egleston, M. D., committee meeting	37.40
May 31.	27.	To C. C. Gambrell, M. D., committee meeting	59.40
May 31.	28.	To Robt. Wilson, Jr., M. D., committee meeting	4.00
May 31.	29.	To R. L. Bryan Co., Trans. Nat. Assn. of the Study of Pellagra	5.00
June 5.	30.	To Lea & Febiger, book	4.00

July	16.	31. To W. J. Burdell, M. D., quarterly meeting	18.60
July	16.	32. To Wm. Egleston, M. D., quarterly meeting	33.40
July	16.	33. To D. B. Frontis, M. D., quarterly meeting	20.00
July	16.	34. To C. C. Gambrell, M. D., quarterly meeting	33.40
July	16.	35. To E. A. Hines, M. D., quarterly meeting	42.60
July	16.	36. To W. M. Lester, M. D., quarterly meeting	4.00
July	16.	37. To Robt. Wilson, Jr., M. D., quarterly meeting	38.00
Oct.	22.	38. To Robt. Wilson, Jr., M. D., quarterly meeting	42.00
Oct.	22.	39. To W. J. Burdell, M. D., quarterly meeting	22.60
Oct.	22.	40. To W. W. Dodson, Ph. G., quarterly meeting	40.60
Oct.	22.	41. To Wm. Egleston, M. D., quarterly meeting	33.40
Oct.	22.	42. To D. B. Frontis, M. D., quarterly meeting	24.00
Oct.	22.	43. To C. C. Gambrell, M. D., quarterly meeting	37.40
Oct.	22.	44. To E. A. Hines, M. D., quarterly meeting	46.40
Oct.	22.	45. To W. M. Lester, M. D., quarterly meeting	8.00
Nov.	1.	46. To J. M. VanMetre, rent of chairs for meeting of Executive Committee	1.50
Nov.	5.	47. To Southern Railroad Company, round trip ticket (F. A. Coward, M. D.) to Dallas, Tex., to attend meeting of Southern Medical Association	47.05
Nov.	19.	48. To C. T. Langley, one float	50.00

Nov.	26.	49.	To W. J. Burdell, M. D., expenses, inspection of State Medical College, The Citadel, State Colored College	56.40
Dec.	6.	50.	To W. J. Burdell, M. D., committee meeting	18.60
Dec.	6.	51.	To Wm. Egleston, M. D. committee meeting	30.50
Dec.	6.	52.	To C. C. Gambrell, M. D., committee meeting	33.40
Dec.	6.	53.	To Miss Mary E. Frayser, expenses for exhibit at State Fair	24.90
Dec.	6.	54.	To E. A. Hines, M. D., expenses, inspection of Winthrop and Clemson Colleges	50.00
Dec.	6.	55.	To The State Company, one year's subscription to the Journal of Infectious Diseases	5.00
Dec.	8.	56.	To D. B. Frontis, M. D., expenses, inspection of Winthrop and Clemson Colleges	69.30
Dec.	20.	57.	To W. J. Burdell, M. D., quarterly meeting	18.60
Dec.	20.	58.	To W. W. Dodson, Ph. G., quarterly meeting	40.60
Dec.	20.	59.	To Wm. Egleston, M. D., quarterly meeting	33.40
Dec.	20.	60.	To D. B. Frontis, M. D., quarterly meeting	16.00
Dec.	20.	61.	To C. C. Gambrell, M. D., quarterly meeting	33.40
Dec.	20.	62.	To E. A. Hines, M. D., quarterly meeting	42.60
Dec.	20.	63.	To W. M. Lester, M. D., quarterly meeting	4.00
Dec.	20.	64.	To Robt. Wilson, Jr., M. D., quarterly meeting	38.00

Dec.	30.	65. To W. M. Lester, M. D., inspection of State Hospital for the Insane	8.00
Dec.	31.	66. To Wm. Egleston, M. D., inspection of State Reformatory	13.00
Dec.	31.	67. To C. C. Gambrell, M. D., inspection of State Hospital for the Insane	33.40
Dec.	31.	68. To Conference of Secretaries of State & Provincial Board of Health (Office of the Secretary, Raleigh, N. C.) dues (1915)	10.00
Dec.	31.	69. To American Medical Association, Chicago, Ill., books	6.00
Dec.	31.	70. To American Public Health Association, Boston, Mass	5.00
Dec.	31.	71. To Lea & Febiger, Philadelphia, Pa., American Journal of the Medical Science (1916) payment in advance	5.00
Dec.	31.	72. To Southern Medical Association, Birmingham, Ala., dues (Oct. 1915, to Oct. 1916)	3.00
Dec.	31.	73. To J. M. VanMetre, rent of chairs for meeting of Executive Committee	1.00
Dec.	31.	74. To W. B. Saunders Company, Philadelphia, Pa., books	9.00
			<hr/>
			\$1,921.75
Balance			78.25
			<hr/>
			\$2,000.00
Appropriation for State Board of Health:			
(Executive Committee)			\$2,000.00

TRAVELING EXPENSES STATE HEALTH OFFICER.

1915.

	Voucher No.		
March 1.	1.	To Jas. A. Hayne, M. D., State Health Officer, expenses during Jan.	\$ 12.30
March 1.	2.	To Jas. A. Hayne, M. D., State Health Officer, expenses during Feb.	21.50
March 29.	3.	To Ticket Agt. So. Ry. Co., mileage book (Form Z)	20.00
March 29.	4.	To Ticket Agt. S.A.L. Ry. Co., mileage book (Form ZZ)	40.00
March 31.	5.	To Jas. A. Hayne, M. D., State Health Officer, expenses during March	18.40
April 12.	6.	To Caughman's Auto Transfer transfer to Lexington and return	7.00
April 30.	7.	To Jas. A. Hayne, M. D., State Health Officer, expenses during April	28.25
May 12.	8.	To Ticket Agt. So. RR. Co., mileage book (Form ZZ)	40.00
May 17.	9.	To Jas. A. Hayne, M. D., State Health Officer, expenses during May (up-to-date)	30.60
May 24.	10.	To Jas. A. Hayne, M. D., State Health Officer, expenses to Atlanta, Ga., to attend National Health Commission Conference	18.75
May 27.	11.	To Ticket Agt. So. RR. Co., mileage book (Form Z)	20.00
May 31.	12.	To Jas. A. Hayne, M. D., State Health Officer, expenses during May (24-31)	35.70

July	10.	13.	To Jas. A. Hayne, M. D., State Health Officer, expenses during June (10-11)	6.50
July	12.	14.	To Jas. A. Hayne, M. D., State Health Officer, expenses during June (17) to July (9)	255.25
July	31.	15.	To Jas. A. Hayne, M. D., State Health Officer, expenses during July	4.85
Aug.	24.	16.	To Jas. A. Hayne, M. D., State Health Officer, expenses during August (up-to-date)	14.65
Sept.	4.	17.	Ticket Agt. S.A.L. RR. Co., mileage book (Form ZZ)	40.00
Oct.	1.	18.	To Jas. A. Hayne, M. D., State Health Officer, expenses during September	126.45
Oct.	12.	19.	To Ticket Agt. So. RR. Co., mileage book (Form Z)	20.00
Oct.	16.	20.	To Jas. A. Hayne, M. D., State Health Officer, expenses during October (up-to-date)	24.80
Nov.	5.	21.	To Ticket Agt. So. RR. Co., round-trip ticket to Dallas, Tex., to attend So. Med. Assn. Conference	47.05
Nov.	15.	22.	To Jas. A. Hayne, M. D., State Health Officer, expenses during November (up-to-date)	77.25
Nov.	29.	23.	To Ticket Agt. So. RR. Co., mileage book (Form Z)	20.00
Nov.	30.	24.	To Jas. A. Hayne, M. D., State Health Officer, expenses during November (17-30)	11.00
Dec.	23.	25.	To Jas. A. Hayne, M. D., State Health Officer, expenses during December (1-23)	24.00

Dec. 31.	26. To Jas. A. Hayne, M. D., State Health Officer, mileage book book (Form Z)	20.00
		<hr/>
		\$ 984.30
	Balance	15.70
		<hr/>
		\$ 1,000.00

Appropriation for Traveling Expenses \$1,000.00.

PRINTING AND STAMPS.

1915.

	Voucher No.		
March 1.	1. To Geo. H. Huggins, P. M., postage stamps	25.00	
March 31.	2. To Geo. H. Huggins, P. M., postage stamps	50.00	
March 31.	3. To The Letter Shop, multi-graph letters	2.20	
March 31.	4. To Lewis Printing Co., circulars	32.50	
March 31.	5. The Daggett Printing Co., printing	21.30	
April 8.	6. To The R. L. Bryan Co., printing report blanks, postal-cards and stamped envelopes	157.40	
May 3.	7. To Lutheran Board of Publication, printing inspection cards	24.85	
May 3.	8. To Geo. H. Huggins, P. M., postage stamps	25.00	
May 29.	9. To Geo. H. Huggins, P. M., postage stamps	25.00	
June 5.	10. To Geo. H. Huggins, P. M., postage stamps	25.00	
June 5.	11. To The Letter Shop, multi-graph letters	2.00	
June 5.	12. To The State Co., printing	25.50	

June	12.	13.	To The R. L. Bryan Ca., printing postal-cards, stamped envelopes	38.60
July	1	14.	To The R. L. Bryan Ca., printing bulletins	33.20
July	15.	15.	To J. T. McCaw, printing	15.20
July	17.	16.	To Daggett Printing Co., printing	10.15
Aug.	16.	17.	To J. T. McCaw, printing	9.00
Sept.	17.	18.	To J. T. McCaw, printing	83.55
Oct.	2.	19.	To The Letter Shop, multi-graph letters	2.00
Oct.	15.	20.	To Geo. H. Huggins, P. M., postage stamps	25.00
Nov.	27.	21.	To J. T. McCaw, printing bulletins	72.00
Dec.	7.	22.	To The Daggett Printing Co., Charleston, S. C., envelopes (ordered by F. L. Parker, M. D.)	2.55
Dec.	31.	23.	To The Letter Shop, multi-graph letters	11.20
1916.				
Jan.	15.	24.	To J. T. McCaw, printing Code of Laws, Infectious Disease App. Leaflets	242.95
				<hr/>
				\$ 961.15
				<hr/>
Balance				38.85
				<hr/>

\$1,000.00

Appropriation for Printing and Stamps \$1,000.00.

VITAL STATISTICS.

1915.

Voucher
No.

March 1. 1. To C. W. Miller, Ch. Clk., salary (Jan. & Feb.) \$ 200.00

March 1.	2.	To Mrs. I. L. Remley, Clk. salary (half time, Jan. & Feb.)	50.00
March 1.	3.	To Miss Pearl Washington, Sten., salary (Jan. & Feb.)	100.00
March 1.	4.	To Miss Fannie Taber, services rendered	10.00
March 1.	5.	To Miss A. R. Murray, services rendered	8.25
March 1.	6.	To Sou. Bell Tel. & Tel. Co., toll messages and phone service (Jan. & Feb.)	13.78
March 1.	7.	To G. M. Carpenter, office supplies	115.15
March 1.	8.	To The Letter Shop, multi-graph letters	2.75
March 1.	9.	To Columbia Seal & Stamp Co., cushion stamps	3.35
March 1.	10.	To W. C. Miller, Ch. Clk., expenses of trip to Richmond, Va., for necessary information	25.50
March 1.	11.	To Geo. H. Huggins, P. M., postage stamps	25.00
March 1.	12.	To J. T. McCaw, printing, stationery, etc.	294.30
March 27.	13.	To J. T. McCaw, stamped and printed envelopes	23.00
March 31.	14.	To C. W. Miller, Ch. Clk., salary	100.00
March 31.	15.	To Mrs. I. L. Remley, Clk., salary	50.00
March 31.	16.	To Arthur Williams, Asst. Clk. salary (half-time)	18.75
March 31.	17.	To Miss Pearl Washington, stenr., salary	50.00
March 31.	18.	To Columbia Seal & Stamp Co., desk seal	2.50
March 31.	19.	To Capital City Steam Laundry & Dye Works, towel service (Jan. Feb. Mch.)	3.00

March 31.	20.	To The State Co., medical dictionary	1.10
March 31.	21.	To J. T. McCaw, printing	131.15
April 8.	22.	To G. M. Carpenter, office supplies	20.10
April 8.	23.	To The R. L. Bryan Co., stamped envelopes	46.00
April 8.	24.	To Underwood Typewriter Co. typewriter	83.03
April 30.	25.	To C. W. Miller, Ch. Clk., salary	100.00
April 30.	26.	To Mrs. I. L. Remley, Clk., salary	50.00
April 30.	27.	To Miss Pearl Washington, Stenr., salary	50.00
April 30.	28.	To Arthur Williams, Asst. Clk. salary (half-time)	25.00
April 30.	29.	To The University Press printing	43.50
May 3.	30.	To So. Bell Tel. & Tel. Co., phone service	4.00
May 3.	31.	To G. M. Carpenter, office supplies	2.45
May 3.	32.	To Geo. H. Huggins, P. M., postage stamps	25.00
May 3.	33.	To The R. L. Bryan Co., stamped envelopes, stationery, etc.	21.15
May 6.	34.	To Columbia Seal & Stamp Co., cushion stamps	1.60
May 6.	35.	To Addressograph Co., plate addresses	13.50
May 29.	36.	To Miss Pearl Washington, salary	50.00
May 29.	37.	To Mr. L. L. Remley, Clk., salary	50.00
May 29.	38.	To Arthur Williams, Asst. Clk. salary (half-time)	25.00
May 29.	39.	To C. W. Miller, Ch. Clk. salary	100.00
May 29.	40.	To Geo. H. Huggins, P. M., postage stamps	25.00

June	3.	41. To So. Bell Tel. & Tel. Co., toll message and phone service	4.30
June	11.	24. To The State Co., fountain-pen	3.00
June	12.	43. To The R. L. Bryan Co., printing postal cards, stamped envelopes, etc.	46.60
June	30.	44. To C. W. Miller, Ch. Clk., salary	100.00
June	30.	45. To Mrs. I. L. Remley, Clk., salary	50.00
June	30.	46. To Arthur Williams, Asst. Clk., salary (half-time)	25.00
June	30.	47. To Miss Pearl Washington, Stenr. salary	50.00
July	1.	48. To Capital City Steam Laundry & Dye Works, towel service (Apr. May June)	3.00
July	1.	49. To The R. L. Bryan Co., clasp envelopes	10.00
July	1.	50. To So. Bell Tel. & Tel. Co., phone service	4.00
July	15.	51. To J. T. McCaw, index cards, certificates, office supplies.....	222.60
July	17.	52. To Jas. A. Hayne, M. D., State Registrar, due postage on reports	10.00
July	24.	53. To J. T. McCaw, stamped envelopes	23.00
July	31.	54. To C. W. Miller, Ch. Clk., salary	100.00
July	31.	55. To Mrs. I. L. Remley, Clk., salary	60.00
July	31.	56. To Arthur Williams, Asst. Clk. salary (half-time)	25.00
July	31.	57. To Miss Pearl Washington, Stenr., salary	50.00
July	31.	58. To The R. L. Bryan Co., clips, printing	7.20
July	31.	59. To So. Bell Tel. & Tel. Co., phone service	4.00

Aug.	6.	60. To C. W. Miller, Ch. Clk. electric fan	5.00
Aug.	9.	61. To Miss Charlotte Cain, ser- vices rendered	21.25
Aug.	31.	62. To C. W. Miller, Ch. Clk., sal- ary	100.00
Aug.	31.	63. To Mrs. I. L. Remley, Clk., sal- ary	60.00
Aug.	31.	64. To Miss Pearl Washington, Stenr., salary	50.00
Aug.	31.	65. To Arthur Williams, Asst. Clk., salary (half-time)	25.00
Aug.	(?)	66. To J. T. McCaw, printing cer- tificates, index cards	27.75
Sept.	3.	67. To Geo. H. Huggins, P. M., postage stamps	25.00
Sept.	4.	68. To J. T. McCaw, printing	23.35
Sept.	9.	69. To Perry-Mann Electric Co., repairing fan	1.25
Sept.	9.	70. To G. M. Carpenter, office sup- plies	2.50
Sept.	9.	71. To S. Bell Tel. & Tel. Co., phone service	4.00
Sept.	16.	72. To Miss Charlotte Cain, ser- vices rendered	26.25
Sept.	17.	73. To J. T. McCaw, government style, return postals	24.25
Sept.	30.	74. To C. W. Miller, Ch. Clk., sal- ary	100.00
Sept.	30.	75. To Mrs. I. L. Remley, Clk., sal- ary	60.00
Sept.	30.	76. To Miss Pearl Washington, Stenr., salary	50.00
Sept.	30.	77. To Arthur Williams, Asst. Clk., salary	25.00
Sept.	30.	78. To The State Co., rubber bands, binding reports	7.75
Sept.	30.	79. To Miss Charlotte Cain, ser- vices rendered	25.00

Sept.	30.	80.	To Jas. A. Hayne, M. D., State Registrar, due postage on reports	5.00
Oct.	1.	81.	To So. Bell Tel. & Tel. Co., phone service	4.00
Oct.	1.	82.	To Capital City Steam Laundry & Dye Works, towel service (July Aug. Sept.)	3.00
Oct.	12.	83.	To Lorick & Lowrance, fixtures for cabinet	2.05
Oct.	30.	84.	To Mrs. I. L. Remley, Clk., salary	60.00
Oct.	30.	85.	To G. M. Carpenter, office supplies	7.10
Oct.	30.	86.	To C. W. Miller, Ch. Clk., salary	100.00
Oct.	30.	87.	To Miss Pearl Washington, Stenr., salary	50.00
Oct.	30.	88.	To Arthur Williams, Asst. Clk salary (half-time)	25.00
Oct.	30.	89.	To Miss Marie Lindsay, services rendered	15.00
Oct.	30.	90.	To Geo. H. Huggins, P. M., postage stamps	25.00
Oct.	30.	91.	To So. Bell Tel. & Tel. Co., phone service	4.00
Oct.	30.	92.	To The R. L. Bryan Co., printing	5.10
Oct.	30.	93.	To G. M. Carpenter, office supplies	2.25
Oct.	30.	94.	To Webb's Art Store, picture moulding, backing, etc.	6.15
Nov.	5.	95.	To Lorick & Lowrance, fixtures for cabinet	3.50
Nov.	5.	96.	To C. W. Miller, Ch. Clk., incidental expenses	5.00
Nov.	27.	97.	To J. T. McCaw, printing certificates, etc	196.10
Nov.	30.	98.	To C. W. Miller, Ch. Clk., salary	100.00

Nov.	30.	99.	To Mrs. I. L. Remley, Clk, salary	60.00
Nov.	30.	100.	To Miss Pearl Washington, Stenr., salary	50.00
Nov.	30.	101.	To Miss Marie Lindsay, ser- vices rendered	16.25
Nov.	30.	102.	To The R. L. Bryan Co., of- fice supplies	1.20
Nov.	30.	103.	To Southern Bell Telephone & Telegraph Co., toll messages and phone service	4.30
Dec.	9.	104.	To J. T. McCaw, printing, etc.	80.25
Dec.	23.	105.	To C. W. Miller, Ch. Clk, salary	100.00
Dec.	23.	106.	To Mrs. I. L. Remley, Clk, salary	60.00
Dec.	23.	107.	To Miss Pearl Washington, Stenr., salary	50.00
Dec.	23.	108.	To Miss Lottie Washington, (extra help)	25.00
Dec.	23.	109.	To Miss Charlotte Cain (extra help)	21.25
Dec.	23.	110.	To Miss Marie Lindsay, ser- vices rendered	33.75
Dec.	31.	111.	To G. M. Carpenter, office sup- plies	7.40
Dec.	31.	112.	To Capital City Steam Laun- dry & Dye Works, (towel service Oct. Nov. Dec.)	3.00
Dec.	31.	113.	To Southern Scale & Fixture Co., one Edison Mimeograph Machine	46.50
Dec.	31.	114.	To Geo. H. Huggins, P. M., postage stamps	50.00
1916.				
Jan.	8.	115.	To J. T. McCaw, printing	96.75
Jan.	15.	116.	To J. T. McCaw, printing, of- fice supplies (Dec.)	94.50
				<hr/>
				\$4,842.36

Balance 157.64

\$5,000.00

Appropriation for Vital Statistics, \$5,000.00.

TUBERCULOSIS CAMP.

1915.

	Voucher No.		
March 16.	1.	To Caughman's Auto Transfer, trip to State Park, committee to make inspection of construction	\$ 6.00
March 19.	2.	To W. B. Guimarin & Co., plumbing, 1st payment	925.00
March 19.	3.	To Weston & Brooker, installment of sewerage system.....	125.00
March 19.	4.	To J. P. Howie, photos of construction	7.50
March 23.	5.	To Columbia Awning & Tent Mnfg. Co., ten curtains	93.00
April 1.	6.	To J. P. Howie, photos of construction	4.50
April 15.	7.	To W. B. Guimarin & Co., plumbing	323.00
April 15.	8.	To W. B. Guimarin & Co., plumbing (barn)	131.00
April 23.	9.	To W. B. Guimarin & Co., plumbing, sewerage, gas piping	275.00
April. 24.	10.	To R. L. Graveley, barn and stable, 1st payment	317.50
April. 26.	11.	To Caughman Bros., sand-clay road, grading and grubbing.	255.00
April 29.	12.	To J. W. Mitchell, cow and calf	50.00
April 30.	13.	To Perry-Mann Co., repairing well-pump	17.25
April 30.	14.	To R. L. Graveley, barn and stable	232.50

May	1.	15. To D. O. Bateman, acetylene gas fixtures	122.00
May	1.	16. To Columbia Awning & Ten Mnfg. Co., window shades.....	36.73
May	1.	17. To Union Carbide Sales Co., carbide	8.38
May	1.	18. To Wilson & Sompayrac, com- mission on barn and stable	27.50
May	1.	19. To F. W. Woolworth Co., dishes, etc.	42.35
May	3.	20. To Lawton-Gillespie Co., uten- sils	6.95
May	6.	21. To Standard Oil Co., gasoline	8.52
May	8.	22. To M. Q. Harmon, carpenter work	12.37
May	11.	23. To Rhea & Sweeney, mule and wagon	137.50
May	11.	24. To Lawton-Gillespie Co., kitch- en utensils	27.20
May	11.	25. Perry-Mann Electric Co., six dry batteries	3.05
May	15.	26. To M. Q. Harmon, carpenter work	6.75
May	22.	27. To M. Q. Harmon, carpenter work	9.90
May	22.	28. To C. E. Nolan, meat cutter.....	2.00
May	24.	29. To J. C. Moore & Son, crash and duck	4.75
May	31.	30. To Wm. Adams, mechanic, salary	27.50
May	31.	31. To Mrs. N. J. Burt, matron, salary	32.26
May	31.	32. To Miss Kathleen Crawford, nurse, salary	19.35
May	31.	33. To Ernest Cooper, M. D., sal- ary	154.17
May	31.	34. To Wm. Williams, cook, salary	19.35
May	31.	35. To Lawton & VanNess, uten- sils, etc.	61.95

May	31.	36. To W. W. Martin, set of wagon harness and back-band	14.60
May	31.	37. To Shand Bldrs. Supply Co., lumber for pigeon-house.....	28.39
May	31.	38. To The State Co., stamping outfit	1.00
June	3.	39. To Sam Harmon, erecting pigeon house	12.15
June	4.	40. To Mrs. G. W. Haltiwanger, pigeons, food-grinder, bone-cutter	17.50
June	4.	41. To P. H. Lachicotte & Co., silver	79.80
June	4.	42. To E. S. Ward, motor oil	14.66
June	5.	43. To M. Q. Harmon, carpenter work	19.01
June	5.	44. To Lorick Bros., range and kitchen utensils	87.60
June	5.	45. To C. D. Stanley, dinner set, etc.	56.25
June	9.	46. To F. W. Woolworth Co., dishes, etc.	7.65
June	10.	47. To Mary H. Claytor, milch-cow	50.00
June	10.	48. To Columbia Ice & Fuel Co., ice consumed	7.50
June	10.	49. To Lorick & Lowrance, groceries	285.81
June	14.	50. To R. L. Bryan Co., office supplies	4.00
June	30.	51. To Ernest Cooper, M. D., salary	125.00
June	30.	52. To Mrs. N. J. Burt, matron, salary	50.00
June	30.	53. To Miss Katherine Crawford, nurse, salary	50.00
June	30.	54. To Wm. Adams, mechanic, salary	25.00
June	30.	55. To Wm. Williams, cook, salary	20.00

June	30.	56. To Ernest Cooper, M. D., expenses to State Sanatorium, N. C. and Charleston, S. G.	19.56
June	(?)	57. To J. M. VanMetre, furniture	1241.55
July	10.	58. To M. F. Eargle, cedar posts.....	39.60
July	15.	59. To S. T. Carter, State Treasurer, insurance on construction	74.57
July	17.	60. To J. T. McCaw, cabinet, index cards, printing, etc.	117.85
July	17.	61. To So. Scales & Fixture Co., physicians' scales	32.50
July	17.	62. To Capital City Steam Laundry & Dye Works, two baskets	5.30
July	17.	63. To D. B. Miller & Co., meat, etc.	13.90
July	17.	64. To R. L. Bryan Co., stamped envelopes	46.00
July	17.	65. To J. P. Howie, photos of construction	1.50
July	17.	66. To Lawton-Gillespie Co., locks, hinges, etc	2.10
July	17.	67. To Columbia Ice & Fuel Co., ice	22.50
July	17.	68. To Murray Drug Co., medical supplies	67.58
July	17.	69. To Union Carbide Sales Co., carbide	41.89
July	17.	70. To H. O. Wallace, crating sewing machine	2.12
July	17.	71. To Lorick & Lowrance, groceries and supplies	159.70
July	17.	72. To J. C. Moore & Son, curtain scrim, etc.	8.26
July	19.	73. To Murray Drug Co., drugs, etc.	38.32
July	27.	74. To West Disinfecting Co., sputum cups, drinking cups, paper towels, etc.	91.00

July	27.	75. To J. Fitzmaurice, linen, damask, towels, etc.	192.00
July	31.	76. To Caughman's Auto Transfer, Executive Committee to construction	9.00
July	31.	77. To Ernest Cooper, M. D., salary	125.00
July	31.	78. To Mrs. N. J. Burt, matron, salary	50.00
July	31.	79. To Miss Kathleen Crawford, nurse, salary	50.00
July	31.	80. To Wm. Williams, cook, salary	20.00
July	31.	81. To Wm. Adams, mechanic, salary	25.00
July	31.	82. Frank Williams, orderly, salary	17.00
July	31.	83. To Henry Hall, orderly, salary	4.65
July	31.	84. To M. Q. Harmon, carpenter work	22.75
Aug.	10.	85. To Columbia Ice & Fuel Co., ice	27.00
Aug.	10.	86. To Lorick & Lowrance, groceries	195.72
Aug.	10.	87. To Sou. Bell Telephone & Telegraph Co., phone service	10.26
Aug.	31.	88. To Ernest Cooper, M. D., salary	125.00
Aug.	31.	89. To Miss Kathleen Crawford, nurse, salary	50.00
Aug.	31.	90. To Wm. Williams, cook, salary	20.00
Aug.	31.	91. To Wm. Adams, mechanic, salary	25.00
Aug.	31.	92. To Mrs. Tucker, acting matron salary	25.00
Aug.	31.	93. To Henry Hall, orderly, salary	12.00
Aug.	(?)	94. To M. Q. Harmon, carpenter work	27.25
Sept.	18.	95. To J. C. Moore & Son, linen, damask, gauze	18.89

Sept.	18.	96.	To So. Distributing Co., spu- tum cups	4.50
Sept.	18.	97.	To Lorick & Lowrance, gro- ceries	205.00
Sept.	18.	98.	To Young & Germany, apples	4.25
Sept.	18.	99.	To Columbia Ice & Fuel Co. ice	27.66
Sept.	18.	100.	To Murray Drug Co., drugs, etc.	14.31
Sept.	18.	101.	To J. S. Wessinger, eggs	7.50
Sept.	18.	102.	To Standard Oil Co., motor gasoline	8.52
Sept.	20.	103.	To Crown Surgical Instru- ment Co., instruments	29.45
Sept.	23.	104.	To S. T. Carter, State Treas- urer, difference in premium on Ins. policy No. 537	24.15
Sept.	30.	105.	To Ernest Cooper, M. D., salary	125.00
Sept.	30.	106.	To Miss Kathleen Crawford, nurse, salary	50.00
Sept.	30.	107.	To Wm. Adams, mechanic, salary	25.00
Sept.	30.	108.	To Wm. Williams, cook, salary	20.00
Sept.	30.	109.	To Mrs. N. J. Burt, salary	50.00
Sept.	30.	110.	To Alex Lewis, orderly, salary	12.00
Oct.	9.	111.	To Shand Bldrs. Supply Co., lumber	127.96
Oct.	9.	112.	To Capital City Steam Laun- dry & Dye Works, laundry and baskets	81.31
Oct.	9.	113.	To So. Bell Telephone & Tele- graph Co., phone service	20.00
Oct.	9.	114.	To The Kny-Scheerer Co., spu- tum cups	38.00
Oct.	9.	115.	To Young & Germany, apples	5.75
Oct.	12.	116.	To Murray Drug Co., drugs.....	10.16
Oct.	12.	117.	To Columbia Ice & Fuel Co., ice	23.55
Oct.	12.	118.	To Lorick & Lowrance, gro- ceries	297.80

Oct.	29.	119.	To Standard Oil Co., floor oil and stand gas engine	23.22
Oct.	30.	120.	To Ernest Cooper, M. D., salary	125.00
Oct.	30.	121.	To Mrs. N. J. Burt, matron, salary	50.00
Oct.	30.	122.	Miss Kathleen Crawford, nurse, salary	50.00
Oct.	30.	123.	To Wm. Adams, mechanic, salary	25.00
Oct.	30.	124.	To Wm. Williams, cook salary	22.50
Oct.	30.	125.	To Alex Lewis, orderly, salary	12.00
Oct.	30.	126.	Jas. L. Tapp Co., silence cloth	1.13
Oct.	30.	127.	To Perry-Mann Electric Co., dry batteries	1.40
Oct.	30.	128.	To Capital City Steam Laun- dry & Dye Works, laundry and express	39.33
Nov.	6.	129.	To Lorick & Lowrance, gro- ceries	195.38
Nov.	6.	130.	To J. M. VanMetre, bed, mat- tress, pillows	16.25
Nov.	17.	131.	To Frank S. Betz Co., record files, bed-warmers, etc.	29.15
Nov.	20.	132.	To Peoples Oil Co., gasoline....	11.02
Nov.	27.	133.	To J. T. McCaw, printing warrant book	4.25
Nov.	30.	134.	Ernest Cooper, M. D., salary	125.00
Nov.	30.	135.	To Miss Kathleen Crawford, nurse, salary	50.00
Nov.	30.	136.	To Mrs. N. J. Burt, matron, salary	50.00
Nov.	30.	137.	To Wm. Adams, mechanic, salary	25.00
Nov.	30.	138.	To Wm. Williams, cook, sal- ary	22.50
Nov.	30.	139.	To Alex. Lewis, orderly, sal- ary	12.00
Dec.	6.	140.	To Rhoads & Fillman, U. S. Army blankets	45.00

Dec.	23.	141.	To Ernest Cooper, M. D. salary	125.00
Dec.	23.	142.	Mrs. N. J. Burt matron, salary	50.00
Dec.	23.	143.	To Miss Kathleen Crawford, nurse, salary	50.00
Dec.	23.	144.	To Wm. Adams, mechanic, salary	25.00
Dec.	23.	145.	To Wm. Williams, cook, salary	22.50
Dec.	23.	146.	To Alex Lewis, orderly, salary	12.00
				<hr/>
				\$ 9,997.52
Balance				2.48
				<hr/>
				\$10,000.00

Appropriation, \$10,000.00.

THREE FREE BEDS AT TUBERCULOSIS CAMP.

Sept. 30.—Voucher No. 1. To three free patients:

Jno. L. Dawson, Charleston County	
(June 5, to Oct. 1)	\$ 118.00
R. W. Poteat, Lexington County	
(June 7, to Oct. 1)	116.00
Jesse York, Pickens County (July 6, to Oct. 1)	88.00

\$ 322.00

Dec. 23.—Voucher No. 2. To five free patients:

Jesse York, Pickens County (Oct. 1, to Nov. 1.)	\$ 31.00
DeWilton McChesny, Richland County (Nov. 1, to Dec. 1)	30.00
R. W. Poteat, Lexington County (Oct. 1, to Jan. 1)	92.00
J. L. Dawson, Charleston County (Oct. 1, to Jan. 1)	92.00
Wilbur T. High, Richland County (Dec. 1, to Jan. 1)	31.00

\$ 276.00

\$ 598.00

Balance 402.00

\$1,000.00

Appropriation for three free beds, \$1,000.00.

SALARIES.

Jas. A. Hayne, M. D., State Health Officer :

1915.

January—Salary	\$ 250.00
February—Salary	250.00
March—Salary	250.00
April—Salary	250.00
May—Salary	250.00
June—Salary	250.00
July—Salary	250.00
August—Salary	250.00
September—Salary	250.00
October—Salary	250.00
November—Salary	250.00
December—Salary	250.00

\$3,000.00

Appropriation for salary of State Health Officer, \$3,000.00

1915.

J. P. Tompkins, Clerk of State Health Officer :

January—Salary	\$ 60.00
February—Salary	60.00
March—Salary	60.00
April—Salary	60.00
May—Salary	60.00
June—Salary	60.00
July—Salary	60.00
August—Salary	60.00
September—Salary	60.00
October—Salary	60.00
November—Salary	60.00
December—Salary	60.00

\$ 720.00

Appropriation for salary of Clerk, \$720.00.

F. A. Coward, M. D., Director State Bd. of Health Lab.:

1915.

January—Salary	208.33
February—Salary	208.33
March—Salary	208.33
April—Salary	208.33
May—Salary	208.33
June—Salary	208.33
July—Salary	208.33
August—Salary	208.33
September—Salary	208.33
October—Salary	208.33
November—Salary	208.33
December—Salary	208.33

 \$2,500.00

 Appropriation for salary of Director of Lab., \$2,500.00.

Jas. R. Cain, Asst. Bacteriologist, State Bd. of Health Laboratory:

1915.

January—Salary	\$ 125.00
February—Salary	125.00
March—Salary	125.00
April—Salary	125.00
May—Salary	125.00
June—Salary	125.00
July—Salary	125.00
August—Salary	125.00
September—Salary	125.00
October—Salary	125.00
November—Salary	125.00
December—Salary	125.00

 \$1,500.00

 Appropriation for salary of Asst. Bacteriologist,
 \$1,500.00.

John Roundtree, Janitor:

1915.

January—Salary	\$ 38.00
February—Salary	38.00
March—Salary	38.00
April—Salary	38.00
May—Salary	38.00
June—Salary	38.00
July—Salary	38.00
August—Salary	38.00
September—Salary	38.00
October—Salary	38.00
November—Salary	38.00
December—Salary	38.00

\$ 456.25

Appropriation for salary of Janitor, \$456.25.

